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FISHERY STATISTICS OF THE WESTERN PACIFIC, VOLUME II

Territory of Guam (1979-84)

COMPILED BY
David C. Hamm, Michael M.C. Quach, and Todd T. Kassman
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Honolulu, Hawaii 96822-2396

NOT FOR PUBLICATION

ADMINISTRATIVE REPORT H-86-20

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Southwest Fisheries Center Administrative Report H-86-20

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PREFACE

In recent years there has been a greatly increased demand for data and information concerning marine fisheries. In 1981 the National Marine Fisheries Service's Southwest Fisheries Center started the Western Pacific Fishery Information Network (WPACFIN) to help Pacific island fishery agencies upgrade their data collecting, processing, and reporting capabilities to help meet these increased needs in the central and western Pacific area. Agencies participating in this program include: the National Marine Fisheries Service's Southwest Fisheries Center and its Honolulu Laboratory, and the Southwest Region and its Western Pacific Program Office, American Samoa's Office of Marine and Wildlife Resources, the Commonwealth of the Northern Mariana Islands' Division of Fish and Wildlife, Guam's Division of Aquatic and Wildlife Resources, Hawaii's Division of Aquatic Resources, and the Western Pacific Regional Fishery Management Council.

In 1982 these agencies formed a Fisheries Data Coordinating Committee (FDCC) and a FDCC Technical Subcommittee to help guide, coordinate, and monitor all of the many activities being undertaken in each agency to improve their systems. Since 1981, significant progress has been made by all participating agencies, particularly in the areas of upgrading data collecting and processing systems.

As a major step in improving and coordinating the data reporting and distributing systems of the agencies, in May 1985 the FDCC agreed to begin producing a combined document reporting each island's major fisheries statistics. Production of the document would be the responsibility of the FDCC Technical Subcommittee and would be coordinated by the WPACFIN program manager. Each agency would supply required data for inclusion in the report through established WPACFIN methods. The FDCC further agreed that the initial reports would contain summaries back to 1979 if the data were available.

This document is the second volume in the new series "Fishery Statistics of the Western Pacific" and contains summaries of commercial and creel survey fishery landings for Guam from 1979 through 1984. The first volume contained similar commercial landings summaries for American Samoa, the Commonwealth of the Northern Mariana Islands, and Hawaii. The next volume will contain 1985 statistics from all of these islands.

TABLE OF CONTENTS

		PAGE
I.	Background	
	Introduction	1
	Progress	1
	Precautions	1
	Contents	2
	Definitions	2
	Graphics	3
II.	Guam Fishery Statistics 1979 Through 1984	
	Background	6
	Data Collecting Systems	7
	Commercial Landings	7
	Creel Surveys	8
	Offshore Creel Survey	9
	Inshore Creel Survey	11
	Data Processing Systems	13
	Commercial Landings	13
	Creel Surveys	13
	Data Reporting Systems	15
	Commercial Landings	15
	Creel Surveys	18
	Interpretation of Statistics	20
III.	Guam Commercial Fishery Statistics 1979 Through 1984 Tables and Figures	23
IV.	Guam Creel Survey Fishery Statistics 1979 Through 1984 Tables and Figures	108

LIST OF GUAM SUMMARY TABLES

TABLE	TITLE	PAGE
1.1	Guam 1979 Annual Commercial Landings	23
1.2	Guam July 1979 Commercial Landings	24
1.3	Guam August 1979 Commercial Landings	24
1.4	Guam September 1979 Commercial Landings	25
1.5	Guam October 1979 Commercial Landings	25
1.6	Guam November 1979 Commercial Landings	26
1.7	Guam December 1979 Commercial Landings	26
2.1	Guam 1980 Annual Commercial Landings	29
2.2	Guam January 1980 Commercial Landings	30
2.3	Guam February 1980 Commercial Landings	30
2.4	Guam March 1980 Commercial Landings	31
2.5	Guam April 1980 Commercial Landings	31
2.6	Guam May 1980 Commercial Landings	32
2.7	Guam June 1980 Commercial Landings	33
2.8	Guam July 1980 Commercial Landings	34
2.9	Guam August 1980 Commercial Landings	35
2.10	Guam September 1980 Commercial Landings	36
2.11	Guam October 1980 Commercial Landings	37
2.12	Guam November 1980 Commercial Landings	38
2.13	Guam December 1980 Commercial Landings	39
3.1	Guam 1981 Annual Commercial Landings	42
3.2	Guam January 1981 Commercial Landings	43
3.3	Guam February 1981 Commercial Landings	43
3.4	Guam March 1981 Commercial Landings	44
3.5	Guam April 1981 Commercial Landings	44
3.6	Guam May 1981 Commercial Landings	45
3.7	Guam June 1981 Commercial Landings	46
3.8	Guam July 1981 Commercial Landings	47
3.9	Guam August 1981 Commercial Landings	48
3.10	Guam September 1981 Commercial Landings	49
3.11	Guam October 1981 Commercial Landings	50
3.12	Guam November 1981 Commercial Landings	50
3.13	Guam December 1981 Commercial Landings	51
4.1	Guam 1982 Annual Commercial Landings	54
4.2	Guam January 1982 Commercial Landings	55
4.3	Guam February 1982 Commercial Landings	56

LIST OF GUAM SUMMARY TABLES (Cont.)

TABLE	TITLE	PAGE
4.4	Guam March 1982 Commercial Landings	56
4.5	Guam April 1982 Commercial Landings	57
4.6	Guam May 1982 Commercial Landings	57
4.7	Guam June 1982 Commercial Landings	58
4.8	Guam July 1982 Commercial Landings	59
4.9	Guam August 1982 Commercial Landings	59
4.10	Guam September 1982 Commercial Landings	60
4.11	Guam October 1982 Commercial Landings	61
4.12	Guam November 1982 Commercial Landings	62
4.13	Guam December 1982 Commercial Landings	63
5.1	Guam 1983 Annual Commercial Landings	66
5.2	Guam January 1983 Commercial Landings	67
5.3	Guam February 1983 Commercial Landings	68
5.4	Guam March 1983 Commercial Landings	69
5.5	Guam April 1983 Commercial Landings	70
5.6	Guam May 1983 Commercial Landings	71
5.7	Guam June 1983 Commercial Landings	72
5.8	Guam July 1983 Commercial Landings	73
5.9	Guam August 1983 Commercial Landings	74
5.10	Guam September 1983 Commercial Landings	75
5.11	Guam October 1983 Commercial Landings	76
5.12	Guam November 1983 Commercial Landings	77
5.13	Guam December 1983 Commercial Landings	78
6.1	Guam 1984 Annual Commercial Landings	81
6.2	Guam January 1984 Commercial Landings	83
6.3	Guam February 1984 Commercial Landings	84
6.4	Guam March 1984 Commercial Landings	85
6.5	Guam April 1984 Commercial Landings	86
6.6	Guam May 1984 Commercial Landings	87
6.7	Guam June 1984 Commercial Landings	88
6.8	Guam July 1984 Commercial Landings	89
6.9	Guam August 1984 Commercial Landings	90
6.10	Guam September 1984 Commercial Landings	91
6.11	Guam October 1984 Commercial Landings	92
6.12	Guam November 1984 Commercial Landings	93
6.13	Guam December 1984 Commercial Landings	94

LIST OF GUAM SUMMARY TABLES (Cont.)

TABLE	TITLE	PAGE
7.1	Guam DAWR Annual 1979 Offshore Creel Survey Expansion Summary	108
7.2	Guam DAWR Annual 1980 Offshore Creel Survey Expansion Summary	108
7.3	Guam DAWR Annual 1981 Offshore Creel Survey Expansion Summary	108
7.4	Guam DAWR Annual 1982 Offshore Creel Survey Expansion Summary	109
7.5	Guam DAWR Annual 1983 Offshore Creel Survey Expansion Summary	109
7.6	Guam DAWR Annual 1984 Offshore Creel Survey Expansion Summary	109
8.1	Guam DAWR January 1979 Offshore Creel Survey Expansion Summary	110
8.2	Guam DAWR February 1979 Offshore Creel Survey Expansion Summary	110
8.3	Guam DAWR March 1979 Offshore Creel Survey Expansion Summary	110
8.4	Guam DAWR April 1979 Offshore Creel Survey Expansion Summary	111
8.5	Guam DAWR May 1979 Offshore Creel Survey Expansion Summary	111
8.6	Guam DAWR June 1979 Offshore Creel Survey Expansion Summary	111
8.7	Guam DAWR July 1979 Offshore Creel Survey Expansion Summary	112
8.8	Guam DAWR August 1979 Offshore Creel Survey Expansion Summary	112
8.9	Guam DAWR September 1979 Offshore Creel Survey Expansion Summary	112
8.10	Guam DAWR October 1979 Offshore Creel Survey Expansion Summary	113
8.11	Guam DAWR November 1979 Offshore Creel Survey Expansion Summary	113
8.12	Guam DAWR December 1979 Offshore Creel Survey Expansion Summary	113
9.1	Guam DAWR Annual 1979 Offshore Creel Survey Species Composition	115
9.2	Guam DAWR January 1979 Offshore Creel Survey Species Composition	116
9.3	Guam DAWR Febuary 1979 Offshore Creel Survey Species Composition	116

LIST OF GUAM SUMMARY TABLES (Cont.)

TABLE	TITLE	PAGE
9.4	Guam DAWR March 1979 Offshore Creel Survey Species Composition	117
9.5	Guam DAWR April 1979 Offshore Creel Survey Species Composition	117
9.6	Guam DAWR May 1979 Offshore Creel Survey Species Composition	118
9.7	Guam DAWR June 1979 Offshore Creel Survey Species Composition	119
9.8	Guam DAWR July 1979 Offshore Creel Survey Species Composition	120
9.9	Guam DAWR August 1979 Offshore Creel Survey Species Composition	121
9.10	Guam DAWR September 1979 Offshore Creel Survey Species Composition	122
9.11	Guam DAWR October 1979 Offshore Creel Survey Species Composition	123
9.12	Guam DAWR November 1979 Offshore Creel Survey Species Composition	123
9.13	Guam DAWR December 1979 Offshore Creel Survey Species Composition	124
10.1	Guam DAWR January 1980 Offshore Creel Survey Expansion Summary	125
10.2	Guam DAWR February 1980 Offshore Creel Survey Expansion Summary	125
10.3	Guam DAWR March 1980 Offshore Creel Survey Expansion Summary	125
10.4	Guam DAWR April 1980 Offshore Creel Survey Expansion Summary	126
10.5	Guam DAWR May 1980 Offshore Creel Survey Expansion Summary	126
10.6	Guam DAWR June 1980 Offshore Creel Survey Expansion Summary	126
10.7	Guam DAWR July 1980 Offshore Creel Survey Expansion Summary	127
10.8	Guam DAWR August 1980 Offshore Creel Survey Expansion Summary	127
10.9	Guam DAWR September 1980 Offshore Creel Survey Expansion Summary	127
10.10	Guam DAWR October 1980 Offshore Creel Survey Expansion Summary	128
10.11	Guam DAWR November 1980 Offshore Creel Survey Expansion Summary	128

LIST OF GUAM SUMMARY TABLES (Cont.)

TABLE	TITLE	PAGE
10.12	Guam DAWR December 1980 Offshore Creel Survey Species Composition	128
11.1	Guam DAWR Annual 1980 Offshore Creel Survey Species Composition	130
11.2	Guam DAWR January 1980 Offshore Creel Survey Species Composition	131
11.3	Guam DAWR Febuary 1980 Offshore Creel Survey Species Composition	131
11.4	Guam DAWR March 1980 Offshore Creel Survey Species Composition	132
11.5	Guam DAWR April 1980 Offshore Creel Survey Species Composition	132
11.6	Guam DAWR May 1980 Offshore Creel Survey Species Composition	133
11.7	Guam DAWR June 1980 Offshore Creel Survey Species Composition	134
11.8	Guam DAWR July 1980 Offshore Creel Survey Species Composition	135
11.9	Guam DAWR August 1980 Offshore Creel Survey Species Composition	136
11.10	Guam DAWR September 1980 Offshore Creel Survey Species Composition	137
11.11	Guam DAWR November 1980 Offshore Creel Survey Species Composition	138
11.12	Guam DAWR December 1980 Offshore Creel Survey Species Composition	138
12.1	Guam DAWR March 1981 Offshore Creel Survey Expansion Summary	139
12.2	Guam DAWR April 1981 Offshore Creel Survey Expansion Summary	139
12.3	Guam DAWR May 1981 Offshore Creel Survey Expansion Summary	139
12.4	Guam DAWR June 1981 Offshore Creel Survey Expansion Summary	139
12.5	Guam DAWR July 1981 Offshore Creel Survey Expansion Summary	140
12.6	Guam DAWR August 1981 Offshore Creel Survey Expansion Summary	140
12.7	Guam DAWR September 1981 Offshore Creel Survey Expansion Summary	140
12.8	Guam DAWR October 1981 Offshore Creel Survey Expansion Summary	141

LIST OF GUAM SUMMARY TABLES (Cont.)

TABLE	TITLE	PAGE
12.9	Guam DAWR November 1981 Offshore Creel Survey Expansion Summary	141
12.10	Guam DAWR December 1981 Offshore Creel Survey Expansion Summary	141
13.1	Guam DAWR Annual 1981 Offshore Creel Survey Species Composition	143
13.2	Guam DAWR March 1981 Offshore Creel Survey Species Composition	145
13.3	Guam DAWR April 1981 Offshore Creel Survey Species Composition	145
13.4	Guam DAWR May 1981 Offshore Creel Survey Species Composition	146
13.5	Guam DAWR June 1981 Offshore Creel Survey Species Composition	147
13.6	Guam DAWR July 1981 Offshore Creel Survey Species Composition	148
13.7	Guam DAWR August 1981 Offshore Creel Survey Species Composition	149
13.8	Guam DAWR September 1981 Offshore Creel Survey Species Composition	150
13.9	Guam DAWR October 1981 Offshore Creel Survey Species Composition	151
13.10	Guam DAWR November 1981 Offshore Creel Survey Species Composition	152
13.11	Guam DAWR December 1981 Offshore Creel Survey Species Composition	153
14.1	Guam DAWR January 1982 Offshore Creel Survey Expansion Summary	154
14.2	Guam DAWR February 1982 Offshore Creel Survey Expansion Summary	154
14.3	Guam DAWR March 1982 Offshore Creel Survey Expansion Summary	154
14.4	Guam DAWR April 1982 Offshore Creel Survey Expansion Summary	155
14.5	Guam DAWR May 1982 Offshore Creel Survey Expansion Summary	155
14.6	Guam DAWR June 1982 Offshore Creel Survey Expansion Summary	155
14.7	Guam DAWR July 1982 Offshore Creel Survey Expansion Summary	156
14.8	Guam DAWR August 1982 Offshore Creel Survey Expansion Summary	156

LIST OF GUAM SUMMARY TABLES (Cont.)

TABLE	TITLE	PAGE
14.9	Guam DAWR September 1982 Offshore Creel Survey Expansion Summary	156
14.10	Guam DAWR October 1982 Offshore Creel Survey Expansion Summary	157
14.11	Guam DAWR November 1982 Offshore Creel Survey Expansion Summary	157
14.12	Guam DAWR December 1982 Offshore Creel Survey Expansion Summary	157
15.1	Guam DAWR Annual 1982 Offshore Creel Survey Species Composition	159
15.2	Guam DAWR January 1982 Offshore Creel Survey Species Composition	161
15.3	Guam DAWR Febuary 1982 Offshore Creel Survey Species Composition	162
15.4	Guam DAWR March 1982 Offshore Creel Survey Species Composition	163
15.5	Guam DAWR April 1982 Offshore Creel Survey Species Composition	164
15.6	Guam DAWR May 1982 Offshore Creel Survey Species Composition	165
15.7	Guam DAWR June 1982 Offshore Creel Survey Species Composition	166
15.8	Guam DAWR July 1982 Offshore Creel Survey Species Composition	167
15.9	Guam DAWR August 1982 Offshore Creel Survey Species Composition	168
15.10	Guam DAWR September 1982 Offshore Creel Survey Species Composition	169
15.11	Guam DAWR October 1982 Offshore Creel Survey Species Composition	170
15.12	Guam DAWR November 1982 Offshore Creel Survey Species Composition	171
15.13	Guam DAWR December 1982 Offshore Creel Survey Species Composition	172
16.1	Guam DAWR January 1983 Offshore Creel Survey Expansion Summary	173
16.2	Guam DAWR February 1983 Offshore Creel Survey Expansion Summary	173
16.3	Guam DAWR March 1983 Offshore Creel Survey Expansion Summary	173
16.4	Guam DAWR April 1983 Offshore Creel Survey Expansion Summary	174

LIST OF GUAM SUMMARY TABLES (Cont.)

TABLE	TITLE	PAGE
16.5	Guam DAWR May 1983 Offshore Creel Survey Expansion Summary	174
16.6	Guam DAWR June 1983 Offshore Creel Survey Expansion Summary	174
16.7	Guam DAWR July 1983 Offshore Creel Survey Expansion Summary	175
16.8	Guam DAWR August 1983 Offshore Creel Survey Expansion Summary	175
16.9	Guam DAWR September 1983 Offshore Creel Survey Expansion Summary	175
16.10	Guam DAWR October 1983 Offshore Creel Survey Expansion Summary	176
16.11	Guam DAWR November 1983 Offshore Creel Survey Expansion Summary	176
16.12	Guam DAWR December 1983 Offshore Creel Survey Expansion Summary	176
17.1	Guam DAWR Annual 1983 Offshore Creel Survey Species Composition	178
17.2	Guam DAWR January 1983 Offshore Creel Survey Species Composition	180
17.3	Guam DAWR Febuary 1983 Offshore Creel Survey Species Composition	181
17.4	Guam DAWR March 1983 Offshore Creel Survey Species Composition	182
17.5	Guam DAWR April 1983 Offshore Creel Survey Species Composition	183
17.6	Guam DAWR May 1983 Offshore Creel Survey Species Composition	184
17.7	Guam DAWR June 1983 Offshore Creel Survey Species Composition	185
17.8	Guam DAWR July 1983 Offshore Creel Survey Species Composition	186
17.9	Guam DAWR August 1983 Offshore Creel Survey Species Composition	187
17.10	Guam DAWR September 1983 Offshore Creel Survey Species Composition	188
17.11	Guam DAWR October 1983 Offshore Creel Survey Species Composition	189
17.12	Guam DAWR November 1983 Offshore Creel Survey Species Composition	190
17.13	Guam DAWR December 1983 Offshore Creel Survey Species Composition	191

LIST OF GUAM SUMMARY TABLES (Cont.)

TABLE	TITLE	PAGE
18.1	Guam DAWR January 1984 Offshore Creel Survey Expansion Summary	192
18.2	Guam DAWR February 1984 Offshore Creel Survey Expansion Summary	192
18.3	Guam DAWR March 1984 Offshore Creel Survey Expansion Summary	192
18.4	Guam DAWR April 1984 Offshore Creel Survey Expansion Summary	193
18.5	Guam DAWR May 1984 Offshore Creel Survey Expansion Summary	193
18.6	Guam DAWR June 1984 Offshore Creel Survey Expansion Summary	193
18.7	Guam DAWR July 1984 Offshore Creel Survey Expansion Summary	194
18.8	Guam DAWR August 1984 Offshore Creel Survey Expansion Summary	194
18.9	Guam DAWR September 1984 Offshore Creel Survey Expansion Summary	194
18.10	Guam DAWR October 1984 Offshore Creel Survey Expansion Summary	195
18.11	Guam DAWR November 1984 Offshore Creel Survey Expansion Summary	195
18.12	Guam DAWR December 1984 Offshore Creel Survey Expansion Summary	195
19.1	Guam DAWR Annual 1984 Offshore Creel Survey Species Composition	197
19.2	Guam DAWR January 1984 Offshore Creel Survey Species Composition	198
19.3	Guam DAWR Febuary 1984 Offshore Creel Survey Species Composition	198
19.4	Guam DAWR March 1984 Offshore Creel Survey Species Composition	199
19.5	Guam DAWR April 1984 Offshore Creel Survey Species Composition	200
19.6	Guam DAWR May 1984 Offshore Creel Survey Species Composition	201
19.7	Guam DAWR June 1984 Offshore Creel Survey Species Composition	202
19.8	Guam DAWR July 1984 Offshore Creel Survey Species Composition	203
19.9	Guam DAWR August 1984 Offshore Creel Survey Species Composition	204

LIST OF GUAM SUMMARY TABLES (Cont.)

TABLE	TITLE	PAGE
19.10	Guam DAWR September 1984 Offshore Creel Survey Species Composition	205
19.11	Guam DAWR October 1984 Offshore Creel Survey Species Composition	205
19.12	Guam DAWR November 1984 Offshore Creel Survey Species Composition	206
19.13	Guam DAWR December 1984 Offshore Creel Survey Species Composition	207
20.1	1979 Marianas Fishing Derby Summary Reports	213
20.2	1980 Marianas Fishing Derby Summary Reports	214
20.3	1981 Marianas Fishing Derby Summary Reports	215
20.4	1982 Marianas Fishing Derby Summary Reports	216
20.5	1983 Marianas Fishing Derby Summary Reports	217
20.6	1984 Marianas Fishing Derby Summary Reports	218
21.1	Guam DAWR Annual 1983 Inshore Creel Survey Expansion Summary	219
21.2	GuamDAWR Annual 1983 Inshore Creel Survey Species Composition	219
21.3	Guam DAWR Annual 1984 Inshore Creel Survey Expansion Summary	220
21.4	Guam DAWR Annual 1984 Inshore Creel Survey Species Composition	220
21.5	Guam DAWR Annual 1983 Combined Inshore and Offshore Creel Survey Species Composition	221
21.6	Guam DAWR Annual 1984 Combined Inshore and Offshore Creel Survey Species Composition	222

LIST OF GUAM FIGURES

FIGURE	TITLE	PAGE
1.1	Guam 1979 Fisheries Categories: Pelagic, Bottom, Reef, and Other	27
1.2	Guam 1979 Monthly Landings of Tunas, PMUS, and BMUS	27
1.3	Guam 1979 Monthly Landings of Wahoo, Mahimahi, and Billfish	28
1.4	Guam 1979 Monthly Landings of Skipjack, Yellowfin, and Other Tunas	28
2.1	Guam 1980 Fisheries Categories: Pelagic, Bottom, Reef, and Other	40
2.2	Guam 1980 Monthly Landings of Tunas, PMUS, and BMUS	40
2.3	Guam 1980 Monthly Landings of Wahoo, Mahimahi, and Billfish	41
2.4	Guam 1980 Monthly Landings of Skipjack, Yellowfin, and Other Tunas	41
3.1	Guam 1981 Fisheries Categories: Pelagic, Bottom, Reef, and Other	52
3.2	Guam 1981 Monthly Landings of Tunas, PMUS, and BMUS	52
3.3	Guam 1981 Monthly Landings of Wahoo, Mahimahi, and Billfish	53
3.4	Guam 1981 Monthly Landings of Skipjack, Yellowfin, and Other Tunas	53
4.1	Guam 1982 Fisheries Categories: Pelagic, Bottom, Reef, and Other	64
4.2	Guam 1982 Monthly Landings of Tunas, PMUS, and BMUS	64
4.3	Guam 1982 Monthly Landings of Wahoo, Mahimahi, and Billfish	65
4.4	Guam 1982 Monthly Landings of Skipjack, Yellowfin, and Other Tunas	65
5.1	Guam 1983 Fisheries Categories: Pelagic, Bottom, Reef, and Other	79
5.2	Guam 1983 Monthly Landings of Tunas, PMUS, and BMUS	79
5.3	Guam 1983 Monthly Landings of Wahoo, Mahimahi, and Billfish	80

LIST OF GUAM FIGURES (Cont.)

FIGURE	TITLE	PAGE
5.4	Guam 1983 Monthly Landings of Skipjack, Yellowfin, and Other Tunas	80
6.1	Guam 1984 Fisheries Categories: Pelagic, Bottom, Reef, and Other	95
6.2	Guam 1984 Monthly Landings of Tunas, PMUS, and BMUS	95
6.3	Guam 1984 Monthly Landings of Wahoo, Mahimahi, and Billfish	96
6.4	Guam 1984 Monthly Landings of Skipjack, Yellowfin, and Other Tunas	96
7.1	Guam 1979-1984 Average Monthly Landings of Tunas, PMUS, and BMUS	97
7.2	Guam 1979-1984 Average Monthly Landings of Wahoo, and Mahimahi	97
7.3	Guam 1979-1984 Average Monthly Landings of Marlin, Spearfish, and Sailfish	98
7.4	Guam 1979-1984 Average Monthly Landings of Skipjack, Yellowfin, and Other Tunas	98
7.5	Guam 1979-1984 Average Monthly Landings of BMUS, Grouper, and Emperor	99
8.1	Guam 1979-1984 Annual Trend of Fisheries Categories: Pelagic, Bottom, Reef, and Other	100
8.2	Guam 1979-1984 Annual Trends of Total Commercial Landings	100
8.3	Guam 1979-1984 Annual Trends of Tunas, PMUS, and BMUS Landings	101
8.4	Guam 1979-1984 Annual Trends of Wahoo, Mahimahi, and Billfish	101
8.5	Guam 1979-1984 Annual Trends of Skipjack, Yellowfin, and Other Tunas	102

LIST OF GUAM FIGURES (Cont.)

FIGURE	TITLE	PAGE
9.1	Guam 1979-1984 Monthly Landings of Wahoo	103
9.2	Guam 1979-1984 Monthly Landings of Mahimahi	103
9.3	Guam 1979-1984 Monthly Landings of Marlin	104
9.4	Guam 1979-1984 Monthly Landings of Sailfish	104
9.5	Guam 1979-1984 Monthly Landings of Spearfish	105
9.6	Guam 1979-1984 Monthly Landings of Skipjack Tuna	105
9.7	Guam 1979-1984 Monthly Landings of Yellowfin Tuna	106
9.8	Guam 1979-1984 Monthly Landings of Emperor	106
9.9	Guam 1979-1984 Monthly Landings of Grouper	107
10.1	Guam 1979 Catch by Method: Troll, Bottom, and Other	114
10.2	Guam 1979 Effort by Method: Troll, Bottom, and Other	114
11.1	Guam 1980 Catch by Method: Troll, Bottom, and Other	129
11.2	Guam 1980 Effort by Method: Troll, Bottom, and Other	129
12.1	Guam 1981 Catch by Method: Troll, Bottom, and Other	142
12.2	Guam 1981 Effort by Method: Troll, Bottom, and Other	142
13.1	Guam 1982 Catch by Method: Troll, Bottom, and Other	158
13.2	Guam 1982 Effort by Method: Troll, Bottom, and Other	158
14.1	Guam 1983 Catch by Method: Troll, Bottom, and Other	177
14.2	Guam 1983 Effort by Method: Troll, Bottom, and Other	177
15.1	Guam 1984 Catch by Method: Troll, Bottom, and Other	196
15.2	Guam 1984 Effort by Method: Troll, Bottom, and Other	196

LIST OF GUAM FIGURES (Cont.)

FIGURE	TITLE	PAGE
16.1	Guam 1979-1984 Average Monthly Landings of Wahoo and Mahimahi	208
16.2	Guam 1979-1984 Average Monthly Landings of Blue Marlin and Sailfish	208
16.3	Guam 1979-1984 Average Monthly Landings of Skipjack and Yellowfin Tuna	209
17.1	Guam 1979-1984 Annual Catch by Method: Troll, Bottom, and Other	210
17.2	Guam 1979-1984 Annual Effort by Method: Troll, Bottom, and Other	210
18.1	Guam 1979-1984 Annual Landings of Wahoo and Mahimahi	211
18.2	Guam 1979-1984 Annual Landings of Blue Marlin and Sailfish	211
18.3	Guam 1979-1984 Annual Landings of Skipjack and Yellowfin Tuna	212

INTRODUCTION

This report has been compiled by staffs of the Guam Division of Aquatic and Wildlife Resources (DAWR) and the Western Pacific Fishery Information Network (WPACFIN) of the National Marine Fisheries Service's (NMFS) Honolulu Laboratory in a cooperative and continuing effort to improve the availability and dissemination of fisheries information in the Pacific area. The creel survey data contained herein were collected, computerized, edited, and processed by DAWR staff, and supplied to NMFS on floppy disks in WPACFIN data base formats. The commercial landings data were collected, computerized, edited, and processed by the NMFS staff with the cooperation of DAWR and the major fish wholesalers on Guam. The tables and graphs in this document were prepared by WPACFIN staff at the Honolulu Laboratory. Summary reports and files were produced on the central WPACFIN computer using software developed specifically for this purpose. Graphs were produced using commercially available software.

PROGRESS

In 1981 when WPACFIN began assisting agencies make improvements in their data collecting and processing systems, only the State of Hawaii had computerized processing. By mid-1982 fisheries offices in American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands (CNMI) all had implemented computerized processing on microcomputers supplied by WPACFIN. Since that time, these agencies have made many significant improvements to their systems and have established sound automated data processing systems. Most agencies, including DAWR, can now provide fishery statistics to WPACFIN within 45 days of the date of collection.

PRECAUTIONS

Data collecting systems vary greatly among Pacific island fishery agencies. Although much standardization has taken place and is continuing, there remain many unique aspects of each island's systems based on local needs and capabilities. When using summaries contained in this report, especially if comparing them to similar statistics reported from other islands in Volume I of this series, one should keep in mind the nature of the collection systems used to produce the statisitcs. For instance, Guam's creel survey summaries are based on expansions of data from fishermen interviews conducted 4-6 times per month, Guam's commercial landings

summaries are from voluntary submission of purchase receipts by the major fish wholesalers, Hawaii's summaries are based on mandatory monthly reporting by licensed commercial fishermen, CNMI's data are based on voluntary monthly reporting by fish buyers using government supplied invoices, and American Samoa's summaries are based on almost daily interviews of the major commercial fishermen. Each system has its advantages and disadvantages and the user should be aware of them when making comparisons or interpretations of the data.

The user should also be aware that species assemblages vary among island groups as do cultural preferences and principal fishing techniques. Population size is of particular importance when making interpretations of the relative value and importance of fisheries. To help the user make these value judgments, detailed explanations of the data collecting and processing systems were given in Volume I for American Samoa, CNMI, and Hawaii, and are given for Guam later in this document.

CONTENTS

This document is divided into three sections. The first is a narrative description of Guam and its fisheries including discussions of the DAWR and WPACFIN data collecting and processing systems. The second section contains summaries of commercial landings data supplied by several Guam wholesalers. Monthly and annual summaries of pounds landed, value, and average price per pound are reported by species or species groups along with graphs of some of the most important commercial species or species assemblages. The third section provides summary reports and graphs of estimated catch and effort statistics from surveys conducted by DAWR including offshore and inshore creel surveys as well as summary reports of the annual Marianas Fishing Derby.

Definitions

The graphs are of summary fishery statistics having particular interest or importance to agencies participating in WPACFIN. For purposes of graphical presentation of the data, several categories have been created that reflect the nature of the fisheries or data collecting systems. Categories used in the graphs include:

1. Fisheries Categories - These are combinations of commercial species of similar ecological types,

specifically, pelagic, bottom fish, reef fish, and "other." "Other" includes groups that generally traverse the other three categories, such as sharks and certain jacks, or are not typically included in these groups, such as mullet and milkfish.

2. Pelagic Management Unit Species (PMUS) - Defined in the Western Pacific Regional Fishery Management Council's Fishery Management Plan for pelagic species to include the billfishes, wahoo, mahimahi, and sharks.

3. Bottom Fish Management Unit Species (BMUS) - Defined as the species of initial importance in the Fishery Management Plan for bottom fish and seamount fisheries including the major deepwater snappers, groupers, emperors, and certain jacks.

4. Tunas - Predominantly skipjack and yellowfin tunas and also including species such as the white or dogtooth tuna, and kawakawa, but excluding wahoo.

5. Other Tunas - All tunas as defined above, but excluding skipjack and yellowfin tunas.

6. Billfish - Combination of all marlin, sailfish, spearfish, and swordfish species.

7. Catch By Method - As used in DAWR creel surveys, methods include trolling, bottom fishing, spear fishing with scuba, spear fishing with snorkel, longlining, ika-shibi, atulai jigging, and miscellaneous other unspecified methods. The graphs combine all methods except trolling and bottom fishing into a single method "Other."

Graphics

Four types of graphs are provided for the commercial landings data. Type I graphs present summary charts of the major species and species groups for each year. Type II graphs are seasonality plots for the major species or species groups showing average weight landed during each month for all years combined. Type III graphs plot annual summary statistics to help visualize the variability between years, and Type IV graphs plot the monthly landings of the major commercially important species from July 1979 through December 1984 to document the monthly fluctuations in catches over the whole time series.

I. Monthly graphs for each year's commercial data:

A. Major fisheries categories
B. Tunas, PMUS, and BMUS
C. Wahoo, mahimahi, and billfish
D. Skipjack, yellowfin, and other tunas

II. Plots of average monthly commercial landings for:

A. Tunas, PMUS, and BMUS
B. Wahoo and mahimahi
C. Marlin, spearfish, and sailfish
D. Skipjack, yellowfin, and other tunas
E. BMUS, grouper, emperor

III. Graphs of annual summary statistics for:

A. Major fisheries categories
B. Total commercial landings - pounds and dollars
C. Tunas, PMUS, and BMUS
D. Wahoo, mahimahi, and billfish
E. Skipjack, yellowfin, and other tunas

IV. Graphs of monthly commercial landings over the entire time series for the following important species:

A. Wahoo
B. Mahimahi
C. Marlin (predominantly blue marlin)
D. Sailfish
E. Spearfish
F. Skipjack tuna
G. Yellowfin tuna
H. Grouper
I. Emperor

Three types of graphs are provided for the summarized creel survey data. Type I graphs present monthly catch and effort statistics for trolling, bottom fishing, and other methods combined. Type II graphs are seasonality plots for the major species showing the average estimated weight landed during each month for all years combined. Type III graphs are of summary annual statistics to demonstrate variability between years.

I. Monthly graphs of each year's survey data include:

   A. Catch by method
   B. Effort by method

II. Plots of average monthly landings for:

   A. Wahoo and mahimahi
   B. Blue marlin and sailfish
   C. Skipjack and yellowfin tuna

III. Graphs of annual summary survey statistics for:

   A. Catch by method
   B. Effort by method
   C. Landings of wahoo and mahimahi
   D. Landings of blue marlin and sailfish
   E. Landings of skipjack and yellowfin tuna

GUAM FISHERY STATISTICS 1979 THROUGH 1984

BACKGROUND

The Territory of Guam is the southernmost, largest, and most populous island in the Marianas Archipelago which stretches northward between long. 144.4' and 146'E from lat. 13.3' to 20.3'N. All of the islands in the chain north of Guam belong to the Commonwealth of the Northern Mariana Islands. Guam is located about 6,000 km (3,700 mi) west-southwest of Honolulu, 2,500 km (1,550 mi) south-southeast of Tokyo, and 2,600 km (1600 mi) east of Manila. Guam is about 48 km (30 mi) long, varies from 6 to 14 km (4 to 9 mi) wide, has an estimated land area of 554 km^2 (214 mi^2) and a population of about 120,000.

Fishing activities on Guam can be divided into the two basic categories of inshore and offshore fishing. Inshore fishing is typically conducted without the use of a boat and consists mostly of nearshore casting, netting, and spearfishing. Offshore fishing typically involves small boat, 1-2 day trolling and bottom fishing trips that usually originate from the three principal harbors located on the west coast and southern tip of the island. Of these three harbors, Apra Harbor is the largest, serves military and commercial shipping activities, and is considered one of the best natural harbors in the western Pacific. It ranks third among the harbors as points of origination for offshore fishing trips. Cocos Lagoon on Guam's southern tip is the second largest protected harbor and ranks second as a launching area for offshore fishing trips. The Agana Boat Basin, centrally located on the west coast of Guam in the capitol of Agana, is the smallest of the three harbors and is the busiest launching area for offshore fishing trips.

The Guam Department of Agriculture's Division of Aquatic and Wildlife Resources (DAWR) has been conducting inshore and offshore creel surveys since the early 1970's. Beginning in 1982, DAWR staff began modifying their data collecting and processing systems to improve estimates of catch and effort by improving sampling technique and by incorporating the use of microcomputers to expand the survey data. The WPACFIN supplied microcomputers and training and worked with DAWR staff and a contractor to redesign the sampling program. In 1982 WPACFIN also began working with local fish wholesalers to obtain information on the commercial landings of Guam. It is from these two sources, DAWR and wholesalers, that the original data for the statistics presented in this report have come.

DATA COLLECTING SYSTEMS

The Guam data collecting systems are divided into two distinctly different systems, one for collecting commercial landings information and one for collecting total landings information through creel surveys.

Commercial Landings

The fish entering the commercial market in Guam come from three sources, full-time commercial fishermen, part-time commercial fishermen, and subsistence or recreational fishermen who frequently sell portions of their catch. There are no licenses required to sell fish in Guam, nor are there any reporting requirements for those selling fish. Before 1979 there was no central place to sell fish. Hence, fishermen had to develop their own markets and peddle their own fish after each trip. In July 1979 the Guam Fishermen's Coop was established in Agana via some government funding. Subsequently, the Coop became the central distribution center for fresh local fish. In 1982 WPACFIN began working with the Coop to improve their invoicing system and obtain data on all fish purchases. A cooperative system was established whereby the Coop would use the forms and coding schemes designed by WPACFIN and would supply copies of all invoices to WPACFIN for entering into computer format. In return, WPACFIN would provide the Coop with document quality control and computer generated summary statistics to help the Coop improve its business. Through a contract with the Coop, all purchase data back to July 1979 were coded and computerized.

In late 1983 two other fish wholesalers began to operate in Guam. Working through DAWR, WPACFIN established similar data collecting and processing arrangements with the two new wholesalers, Michael Pohl Enterprises and Pacific Fish House (PFH). The DAWR became responsible for collecting, editing, and coding the data, and WPACFIN performed the computerization and reporting functions. It is through the voluntary cooperation of these three wholesalers that reporting on the commercial fisheries of Guam is possible. All tables and figures of commercial landings information included in this report are provided with the consent of these wholesalers. Although a few fishermen still peddle their catches themselves, the majority of the fresh fish entering the commercial market in Guam is purchased by one the these three main wholesalers. (NOTE: PFH terminated operation in 1984.)

Data collected on commercial forms include:

Date
Fisherman code
Number of fishermen
Hours fished
Area fished
Species caught
Number of pieces caught
Pounds caught
Price per pound

Creel Surveys

The DAWR has the responsibility to monitor and protect the wildlife and marine resources of Guam. To do this for the marine fisheries, they began conducting creel surveys in the early 1970's. By systematic, random interviewing of fishermen DAWR developed a means of estimating total catch and effort by fishing method for the inshore and offshore fisheries. Sampling methodologies were frequently modified in the early years to incorporate new information and insights gained during the surveys. Aerial surveys were conducted for several years to help improve estimates of percent coverage. By 1979 the basic survey methodology was fairly well established. All data processing was done by hand.

In the 1970's an annual fishing derby was organized on Guam by groups of local fishermen. This 3-day tournament soon became a highly successful event with much participation by local recreational and commercial fishermen. The DAWR began collecting census information on the Annual Marianas Fishing Derby activities as a means of obtaining additional catch and effort information. Although the significance of these data is minor compared to the creel surveys, summaries of derby results are included in this document as a point of interest.

In 1982 WPACFIN hired a contractor to work with DAWR staff to improve the statistical validity of the creel surveys and to establish mathematical algorithms to expand the sample data to estimate total catch and effort with confidence intervals. Consequently, DAWR further improved their sampling methodologies based on the contractor's recommendations, such as adding surveys to better estimate total participation. WPACFIN developed computer processing systems to automate the data handling and expansion activities. The system design is flexible enough to allow for continued improvements as

additional information, insight, and sometimes funding are gained.

It is beyond the scope of this document to trace the evolution and details of the sampling strategies used by DAWR. Because of the evolutionary nature of the surveys, offshore data collected before 1979 and inshore data collected before 1983 are not considered to be of high enough quality to report in this document. Although the sampling methodologies have varied some between years, most of the basic concepts and assumptions have remained the same. It is essential for the user to understand the basic sampling design and some of the assumptions made for the offshore and inshore surveys to facilitate proper interpretation of the resultant statistics.

The DAWR's fisherman interview surveys, also called creel surveys, are divided into two separate major surveys, inshore and offshore. Both are based on a systematic random sampling of the fisheries; field sampling and interviews are done on a specific number of randomly selected weekdays and weekend-holidays each month. Both surveys are stratified by weekday and weekend-holiday sampling, and are currently conducted on 4-6 days per month. Both include two subsurveys, one for counting and estimating total participation and one for actually interviewing fishermen for catch and effort information. Both are based on the assumptions that the information given by the fisherman during the interview is accurate and the fishermen from which interviews are obtained are representative of the entire fishing population.

Offshore Creel Survey

Interviewing of offshore fishermen is conducted at the Agana Boat Basin where the majority of boating activity originates and terminates. Concurrent with interviewing fishermen returning from trips at the boat basin, a participation survey is conducted to obtain counts of boating activity for the entire island. For estimating total participation for a survey day, unless contrary information is available, if a boat is "out," as evidenced by its trailer at a boat ramp or being missing from its normal berthing area, it is assumed to be fishing. A further assumption is made that the fishing activity and success rate of fishermen originating at the Agana Boat Basin are not statistically different from those of fishermen leaving from other areas on the island. The basic premise of the offshore sampling program is that the combined interviews collected on each survey day are sufficient to estimate the average catch and effort for each

method used during that day. Therefore, each survey day represents a measurement of the offshore fisheries. Data collected during the participation portion of the offshore creel survey are limited to boat count by launching area, whereas data collected during the fisherman interviews include the following:

* Date (year, month, day)
* Type day (weekday or weekend-holiday)
* Fishing method
* Interview time
  Area fished
  Boat number
* Number of fishermen
* Number of gear units
* Hours fished per gear
  Total count for all species combined
  Type total count
* Total weight for all species combined
  Type total weight
  Total number of species
  Type total number of species
Total count for each species
  Type count for each species
Total weight for each species
  Type total weight for each species
Species name (or species group)
  Length for an individual fish
  Type individual length
  Weight for an individual fish
  Type individual weight
  Bait used (up to three different types)
  Wind direction and speed
  Weather conditions
  Cloud cover
  Lunar day
  Percent of catch kept
  Percent of catch sold to the Coop
  Percent of catch sold elsewhere

It is not always possible for the interviewer to obtain information on all items listed. However, those marked with an asterisk (*) are essential to have a completed interview that can be used in the data expansion process for estimating total catch and effort. Those marked with a pound or number sign (#) are essential in making estimates of percent species composition of the catch. The "type" elements (e.g., "Type individual length") identify the kind of measurements, i.e., either actual, estimated, or calculated.

Inshore Creel Survey

Fielding the inshore creel survey is considerably more complex and troublesome than the offshore survey for several reasons. For instance, fishing activities originate from and occur over a large portion of the coastline and participation counts, especially fishermen interviews, are much more difficult to obtain. Additionally, inshore interviews may reflect only a portion of the actual fishing trip because the interview is frequently obtained before the fisherman is finished fishing for the day. This is done primarily because the interviewer must continue working farther down the coastline to obtain other interviews. Fisherman turnover rate during the sampling period is also a difficult factor for which to adjust. Tidal stage and moon phase also influence inshore fishing much more than offshore fishing.

Notwithstanding these problems, the basic design of the inshore survey is very similar to the offshore survey in that it has participation count and creel interview portions. Two of the significant differences between the inshore and offshore surveys are that the inshore participation counts are made by fishing method as well as by location, and a whole month's inshore interview information on catch and effort is combined to form averages for the month. Therefore, the daily measurement of the inshore fisheries is based on the island wide participation counts for a survey day by using monthly averages for the catch information. This modification of sampling design was required for DAWR to physically complete an inshore survey with limited manpower. It is possible to obtain participation counts for essentially the entire island during a single sample day, but it is not possible to obtain creel interviews for all methods for the entire island with the manpower available. Therefore, the surveyable portions of the coastline were divided into three regions to facilitate statistically sound sampling of fisherman. Information collected during the inshore participation survey includes:

* Date (year, month, day)
* Type day (weekday or weekend-holiday)
* Location fished
  Time sighted
* Method used
* Number of persons
* Number of gear units
  Reef zone fished
  Weather and water conditions
  Tidal stage

Information collected during the inshore fisherman interviews includes:

* Date (year, month, day)
* Type day (weekday or weekend-holiday)
* Fishing method
* Interview time
* Location
  Reef zone fished
* Number of fishermen
* Number of gear units
* Actual hours fished per gear
* Estimated trip time
  Total count for all species combined
  Type total count
* Total weight for all species combined
  Type total weight
  Total number of species
Total count for each species
  Type count for each species
Total weight for each species
  Type total weight for each species
Species name (or species group)
  Length for an individual fish
  Type individual length
  Weight for an individual fish
  Type individual weight
  Bait
  Wind direction
  Wind speed
  Weather conditions
  Cloud cover
  Surf
  Tidal stage
  Swell direction

As in the offshore survey, it is not always possible for the interviewer to obtain information on all items listed. Those marked with an asterisk (*) are essential in the data expansion process for estimating total catch and effort. Those marked with a pound or number sign (#) are essential in making estimates of percent species composition of the catch. The "type" elements (e.g., "Type individual length") identify the kind of measurements, i.e., either actual, estimated, or calculated.

DATA PROCESSING SYSTEMS

The Guam data processing systems are divided into two separate and distinctly different systems, one for processing the commercial landings data and one for processing the DAWR creel survey data.

Commercial Landings

The processing system for the commercial landings data collected from the wholesalers is fairly straight forward. A purchase receipt form is completed by the wholesaler each time fish are purchased from a fisherman. Catches are divided into categories for weighing by species or species group and, where practicable, number of pieces is recorded. Coding and initial quality control of the forms are done by Coop or DAWR personnel before they are shipped to WPACFIN for computer processing. Data are entered into a computer and loaded into central WPACFIN data bases where edit reports are generated and used to locate and correct any errors in the data base. Once all edits, verifications, and corrections have been made, summary reports are generated. Standard reports available include total monthly and annual landings by species, total landings by fisherman, and landings by fisherman by species. Receipt books are returned to the wholesalers along with summary reports for their use.

Creel Surveys

The processing systems for the creel surveys are much more complex and have varied more over the years than those for the commercial landings data. However, the summary reports provided in this document have all been generated using standard methodologies in place in 1986. Therefore, only the current methods are important to understand the statistics presented in this document and only those methods will be described. The user may obtain additional information from DAWR if desired.

The basic data handling and processing systems for the inshore and offshore surveys are the same. Data forms completed in the field during the participation and creel surveys are returned to the office and edited for completeness and legibility before the data are entered into structured computer data bases using commercially available data base management software. Edit and summary reports are produced to verify the quality of the data and any errors are corrected in

the data bases. Data bases are then translated into standard record formats for the data processing and expansion systems programmed by WPACFIN specifically for the offshore and inshore surveys. As data are converted into the Guam Offshore Expansion System (GOES) and the Guam Inshore Expansion System (GIES), additional error checks are made by the computer to make sure only valid information enters the expansion systems. Errors are flagged and printed to facilitate correction. The GOES and GIES are user friendly, menu driven systems that step the user through a series of processes that summarize creel survey and participation data to produce catch and effort expansion and species composition files and reports. Typically 1 month of data is processed at a time, although the system allows for processing broader time increments together to produce expansion and summary files based on larger accumulations of data.

Generally speaking, the expansion algorithms for the inshore and offshore surveys are very similar. Estimates of daily catch, effort, and participation are generated for each method surveyed during the participation and creel surveys. The GOES uses same day catch and effort averages to expand the participation counts, whereas the GIES uses monthly catch and effort averages to expand the participation counts for a given survey day. These daily estimates are considered measurements of the fisheries for that day. Average weekday and weekend-holiday estimates and their associated variances or confidence intervals are created from individual daily measurements. These are weighted by the number of each type of day in the month, or other timespan, and multiplied by proportionality constants to adjust for percent coverage to produce estimates of total catch, effort, and participation along with their confidence intervals. All steps in the expansion process are stratified by fishing method. The expansion systems produce several detailed summary reports and a summary expansion data file containing the final totals for all important catch and effort statistics. This summary expansion file is later used to produce the type of reports contained in this document.

Estimates of species composition of the expanded catch are obtained for each method by multiplying the calculated percent species composition of the surveyed catch by the expanded total catch. Percent species composition by fishing method is obtained from the sampled catch based on the average individual weight and the total number of individuals recorded for that species. The average size of each species is obtained by one of three methods, depending on the availability of data in the data base. If total weight and count information is available, the average size per

individual is calculated by dividing the total weight by the total count. If total weight and count information is not available but individual weight measurements for a species are available, the average size per individual is calculated by dividing the sum of all individual weights by the total number of individuals weighed. If neither of these methods can be used because no size information is available in the data base, the user is asked to input the average size for that species, and the input average size is multiplied by the total count for the species to estimate total sampled catch of that species. Therefore, percent species composition is calculated by dividing the estimated sampled species weight by the estimated total sampled weight of all species combined. The species composition programs produce summary reports for immediate use and summary data files for later use as input to reporting and summarizing software used to generate the types of reports contained in this document.

DATA REPORTING SYSTEMS

The Guam data reporting systems are divided into two separate systems, one for reporting on the commercial landings data and one for reporting the results of the creel survey.

Commercial Landings

After completing all editing and quality control activities for the commercial landings data, monthly and annual summary reports by species are generated. The commercial landings reports section of this document includes monthly and annual reports from July 1979 through December 1984. Each report contains information on the pounds, value, average price per pound, and number of recorded landings for each species or species group. The number of recorded landings ("RECORDS" in the tables) is a measurement of how many times each species was purchased regardless of its number or weight in the landing. This statistic is provided to give an indication of the frequency each species is reported. The POUNDS can be divided by the RECORDS to calculate the average weight of each landing. Each monthly report contains a subtotal for the sum of all species combined for that month, and the December report also includes the annual total. Annual reports contain the total landings for each species and the total recorded landings for all species for the calendar year.

Included with the commercial landings summary reports are graphs of some of the important statistics. The following grouping of species, species categories, and abbreviations are used in the tables and graphs as taken from Guam's commercial landings:

I. Pelagic Management Unit Species (PMUS)

Mahimahi (dolphinfish)
Marlin (probably all blue, but possibly striped or black)
Shortbill spearfish
Sailfish
Wahoo
Sharks

II. Bottom Fish Management Unit Species (BMUS)

Jacks (unclassified, but excluding bigeye scad)
Bottom fish (unclassified)
Ehu (red snapper)
Gindai (flower snapper)
Grouper
Kalekale (pink snapper)
Lehi (silverjaw snapper)
Onaga (red or longtail snapper)
Opakapaka (pink snapper)
Uku (gray snapper)
Emperorfish

III. Billfish

Marlin (probably all blue, but possibly striped or black)
Shortbill spearfish
Sailfish

IV. Tunas

Tunas (unclassified)
Skipjack tuna
Yellowfin tuna
Dogtooth or white tuna
Kawakawa

V. Other Tuna

All the above tunas excluding skipjack and yellowfin tunas.

VI. Fisheries Categories

A. Pelagic Species

All PMUS and tuna species plus the following:

Troll fish (unclassified)
Barracuda
Rainbow runner

B. Bottom Fish

Same as the BMUS

C. Reef Fish

Reef fish (unclassified)
Giant wrasse
Rabbitfish
Rudderfish
Squirrelfish
Parrotfish
Snapper
Surgeonfish
Unicornfish
Goatfish

D. Other

Miscellaneous (unclassified)
Bigeye scad
Mullet
Eels
Milkfish
Invertebrates (unclassified)
Crabs (unclassified)
Coconut crab
Lobster
Shrimp
Octopus
Squid
Seaweeds
Imported

Creel Surveys

Two general types of reports are included in this document from the DAWR creel surveys, catch and effort expansion reports and species composition reports. These reports were produced by using the expansion and species composition files created by the GOES and GIES systems as input to a series of utility programs developed by WPACFIN. The utility programs reorganize, format, and summarize data from the GOES and GIES files to improve the presentation of the data and reduce the amount of space required to report the important statistics. Two of the most significant of these space saving improvements are the combining of many species into species groups, usually to the family level, and the combining of lesser used fishing methods into a single category. The original offshore and inshore species composition files contained about 330 different species categories which were reduced into about 90 categories. For instance, 22 species of squirrelfish and 20 species of wrasse were reduced into just the 2 family groupings. All significant or important species maintained their individual identity. In the original offshore species composition files catches were reported for nine methods; however, only two methods, trolling and bottom fishing, were significant as they generally accounted for over 97% of the catch. Therefore, reports of offshore species compositon were reduced to just three method categories, trolling, bottom fishing, and other. Inshore species composition reports were reduced to totals only. Expansion reports for the inshore and offshore surveys include estimates of total catch and effort for each method recorded.

Monthly and annual catch and effort expansion reports and species composition reports are presented for the offshore creel surveys for 1979 through 1984. Some monthly reports are missing due to a lack of sampling; however, annual reports adjust for this by using averages from sampled months to estimate the catch, effort, and species composition for the months not sampled. Monthly expansion and species composition reports have matching totals for catch by method since the monthly species composition reports were based on the expansion files. Annual expansion and species composition reports also have identical totals because the species reports were generated from the annual expansion files. However, the totals on the annual reports will not equal those obtained by adding all of the monthly files together because the annual expansion reports were generated by re-expanding the entire year's data together, thereby increasing the sample size significantly, and it is hoped, improving the annual estimates

of percent species composition and of catch and effort and their associated coefficient of variation (CV). This also makes it possible to expand for months where sampling was insufficient or nonexistant. The annual species composition reports were created by calculating annual percentages of species composition by combining all sampling for the year and then multiplying these percentages by the annual expansion totals. This allows for estimation of percent species composition for unsampled months and greatly increases the sample size used to calculate the percentage. Annual expansion and species composition reports are presented for the inshore creel surveys for 1983 and 1984. Combined inshore and offshore species composition reports are presented for 1983 and 1984.

Computer generated numbers and all totals in the reports are subject to rounding error. All catches are reported in pounds and effort in hours, boat hours for the offshore survey and gear hours for the inshore survey. On the offshore expansion reports the boat counts by method will not add to the total boat count when the same boat was used for more than one fishing method on a single trip. In these cases, the boat is included in the count for each method used, but included only once in the total boat count. A coefficient of variation is included for each statistic reported in the offshore and inshore expansion reports. This statistic provides a measurement of the relative variation associated with the estimate preceding it and is calculated by dividing the standard error of the estimate by the estimate and multiplying by 100 and rounding to express the answer as a whole percentage. The larger the CV, the larger the relative variation in the data used to generate the estimate, and therefore the less precise the estimate. If an asterisk (*) follows a line, there were an insufficient number of samples collected for that method during that month to properly calculate the CV. There must be at least two weekday and two weekend-holiday samples for each method to properly compute a standard error and therefore properly compute the CV. If an asterisk is present and the CV is greater than zero (0), then there were enough samples on either the weekend days or the weekend-holiday days to compute a standard error for that type of day, but not for the other type of day. In this case the CV provided in the report is for the type of day where enough sample information was available to meet the minimum requirements for calculating CV. If an asterisk is present and the CV equals zero, then neither day had sufficient number of samples to calculate CV. It follows then, that any time an asterisk is present for any of the methods, the totals for the month are questionable.

On the inshore expansion reports, catch per unit effort (CPUE) is equal to the estimated catch divided by the gear hours of effort because CPUE is averaged over the entire timespan for which the expansion was run, a full year in this case. Inshore CPUE does not, therefore, have an associated CV. However, on the offshore expansion reports, average CPUE is calculated using the same type of algorithm used for other expansion elements and has an associated CV. This means that average monthly CPUE is calculated by using each of the average daily CPUE's, calculated by dividing the daily sampled catch by the daily sampled boat hours, as equally weighted measurements for each type day sampled and finding the average and variance of these measurements taking into account the number of weekday and weekend-holiday days in the month. The average monthly offshore CPUE could also be calculated by dividing the estimated monthly catch by the estimated monthly boat hours, but this would provide no indication of the variability of the CPUE and would also essentially weight the average CPUE by the level of participation.

Offshore species composition reports provide estimated landings and percent species composition for each species or species group for the two major offshore fishing methods, trolling and bottom fishing, a total for all other methods combined, and an overall total for all methods. The inshore and combined inshore and offshore species composition reports provide the statistics only for all methods combined.

The reports for the annual Marianas Fishing Derby include derby and species totals by day for a variety of catch and effort statistics. Seven major pelagic species are targeted during the derby including billfish (primarily blue marlin but also sailfish, spearfish, and black marlin), yellowfin tuna, skipjack tuna, mahimahi, wahoo, rainbow runner, and barracuda. Most effort is directed at marlin, wahoo, and yellowfin tuna because prizes for these categories are the best. Average catch per boat trip has ranged from 34 to 66 pounds and landings of marlin have ranged from 6 averaging 263 pounds each to 43 averaging 138 pounds each. This tournament continues to grow in popularity and is the biggest organized fishing event in Guam.

INTERPRETATION OF STATISTICS

The user is reminded again to pay heed to the precautions and assumptions identified earlier in this document when making interpretations of or inferences from data reported in

the tables and graphs. Remember also that neither the commercial landings summaries nor the creel summaries are based on enumeration of fishing activities, but on samples of those activities. Commercial landings reports are believed to include a high percentage of the actual commercial landings made on Guam. The creel survey expansion reports are based on surveys of the inshore and offshore fisheries conducted 4-6 times per month. One of the major factors in expanding the survey data into monthly and annual estimates is the use of proportionality constants to adjust for percent coverage of the surveys. The flexibility of the survey design allows for the refinement of these constants as additional information is gained on Guam's fishing activities. If the constants are improved upon, the basic survey data can be re-expanded to create better overall estimates. However, the variability and species compostion would not be expected to change since these statistics are strictly based on the actual survey information collected from the fishermen.

Following are a few additional pieces of information not provided elsewhere in this document that could help the user interpret and gain perspective for the reported statistics.

For the 6 years of offshore creel survey reports included in this document, over 230 individual species codes were used in the original data bases. Of these 230, only 6 had a combined total landings over 1% of the total landings. Of these 6, one was a bottom fish (red opercular emperorfish) with 1.8%, and 5 were pelagic species totalling over 84%. The pelagic species in ascending order of importance were blue marlin (7.3%), wahoo (11.8%), yellowfin tuna (15.2%), mahimahi (20.8%), and skipjack tuna (29.1%). The breakdown of catch by fishing method for the 6 years of offshore surveys in descending order of importance was trolling (87.6%), bottom fishing (9.9%), atuli (akule or bigeye scad) jigging (1.0%), spear fishing by scuba (>0.6%), spear fishing by snorkel (<0.6%), longlining (<0.2%), ika-shibi (<0.1%), and all others combined (0.1%).

The inshore landings for 1983 and 1984 were 55 and 44% of the offshore landings and 35 and 31% of the total landings for these years, respectively. If these statistics are representative of the true proportion the inshore landings are to the total landings, the user can make estimates of the total island wide landings for Guam for the 4 years for which inshore statistics are not available. For the inshore surveys there were 122 species identified in 1983 and 127 species in 1984. Of these, 14 had estimated landings of over 1% of the total inshore catch for 1983, and 18 for 1984.

The inshore creel surveys for 1983 and 1984 were conducted during the daytime. However, the inshore reefs of Guam are also heavily fished after dark. Therefore, beginning in October 1984 the DAWR began conducting nighttime surveys of inshore fishing activities as a means of improving their estimates of total inshore fishing. Future volumes of this series will report on these night surveys.

Commercial Fishery Statistics 1979–84

TERRITORY OF GUAM
COMMERCIAL FISHERY STATISTICS
1979 THROUGH 1984

TABLES AND FIGURES

Compiled By

Guam Division of Aquatic and Wildlife Resources

and the

Western Pacific Fishery Information Network

December 1986

Table 1.1

GUAM 1979 ANNUAL COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	21	1679.75	1847.54	1.10
BOTTOM FISH	77	3026.00	4539.31	1.50
GROUPER	2	243.00	364.50	1.50
LEHI (SILVERJAW)	1	13.00	19.50	1.50
ONAGA (RED SNAPPER)	10	153.75	252.65	1.64
REEF FISH	44	1740.25	2613.36	1.50
EMPEROR (MAFUTE)	3	138.00	207.00	1.50
PARROTFISH	1	6.50	8.13	1.25
TROLL FISH	20	2360.00	2951.45	1.25
BARRACUDA	18	321.50	401.88	1.25
DOLPHIN (MAHIMAHI)	35	793.25	991.56	1.25
MARLIN	17	3140.50	2938.63	0.94
SAILFISH	2	98.00	106.50	1.09
RAINBOW RUNNER	13	232.00	289.95	1.25
WAHOO	66	3226.60	4048.81	1.25
SKIPJACK TUNA	89	4614.50	5110.26	1.11
DOGTOOTH TUNA	10	347.75	434.69	1.25
YELLOWFIN TUNA	76	3470.10	4553.82	1.31
OCTOPUS	1	3.00	4.50	1.50
** TOTAL **	506	25607.45	31684.04	

Table 1.2

GUAM JULY 1979 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BOTTOM FISH	1	20.00	30.00	1.50
MARLIN	6	1658.00	1398.88	0.84
WAHOO	4	106.10	132.63	1.25
SKIPJACK TUNA	4	63.50	79.38	1.25
DOGTOOTH TUNA	1	23.00	28.75	1.25
YELLOWFIN TUNA	5	430.10	537.63	1.25
** SUBTOTAL **	21	2300.70	2207.27	

Table 1.3

GUAM AUGUST 1979 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	2	10.00	15.01	1.50
BOTTOM FISH	13	615.00	922.50	1.50
TROLL FISH	3	587.00	720.50	1.23
BARRACUDA	2	76.00	95.00	1.25
MARLIN	5	663.50	663.50	1.00
SAILFISH	1	34.00	42.50	1.25
WAHOO	5	296.00	360.50	1.22
SKIPJACK TUNA	9	798.50	998.13	1.25
YELLOWFIN TUNA	8	419.00	523.75	1.25
** SUBTOTAL **	48	3499.00	4341.39	

Table 1.4

GUAM SEPTEMBER 1979 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	8	1033.75	1347.33	1.30
BOTTOM FISH	33	1557.25	2336.13	1.50
GROUPER	1	73.00	109.50	1.50
LEHI (SILVERJAW)	1	13.00	19.50	1.50
ONAGA (RED SNAPPER)	2	37.50	56.25	1.50
REEF FISH	8	451.00	670.25	1.49
EMPEROR (MAFUTE)	2	128.00	192.00	1.50
PARROTFISH	1	6.50	8.13	1.25
TROLL FISH	6	1116.00	1395.00	1.25
BARRACUDA	7	130.50	163.13	1.25
DOLPHIN (MAHIMAHI)	1	28.00	35.00	1.25
MARLIN	2	390.00	390.00	1.00
RAINBOW RUNNER	4	139.00	173.75	1.25
WAHOO	12	1280.25	1619.93	1.27
SKIPJACK TUNA	12	806.00	1007.50	1.25
DOGTOOTH TUNA	5	198.25	247.81	1.25
YELLOWFIN TUNA	9	473.25	591.56	1.25
** SUBTOTAL **	114	7861.25	10362.77	

Table 1.5

GUAM OCTOBER 1979 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	6	477.00	360.20	0.76
BOTTOM FISH	5	230.75	346.13	1.50
ONAGA (RED SNAPPER)	2	37.00	53.90	1.46
REEF FISH	10	353.50	530.25	1.50
TROLL FISH	4	338.00	437.20	1.29
DOLPHIN (MAHIMAHI)	1	32.00	40.00	1.25
MARLIN	4	429.00	486.25	1.13
SAILFISH	1	64.00	64.00	1.00
WAHOO	3	89.00	111.25	1.25
SKIPJACK TUNA	17	1379.75	1456.25	1.06
DOGTOOTH TUNA	1	44.00	55.00	1.25
YELLOWFIN TUNA	9	496.00	577.50	1.16
OCTOPUS	1	3.00	4.50	1.50
** SUBTOTAL **	64	3973.00	4522.43	

Table 1.6

GUAM NOVEMBER 1979 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	5	159.00	125.00	0.79
BOTTOM FISH	14	267.25	400.90	1.50
ONAGA (RED SNAPPER)	5	65.75	115.50	1.76
REEF FISH	16	675.25	1012.88	1.50
EMPEROR (MAFUTE)	1	10.00	15.00	1.50
TROLL FISH	6	272.00	340.00	1.25
BARRACUDA	4	48.00	60.00	1.25
DOLPHIN (MAHIMAHI)	4	78.00	97.50	1.25
RAINBOW RUNNER	1	12.00	15.00	1.25
WAHOO	17	469.25	592.00	1.26
SKIPJACK TUNA	15	380.00	380.00	1.00
YELLOWFIN TUNA	12	543.00	697.25	1.28
** SUBTOTAL **	100	2979.50	3851.03	

Table 1.7

GUAM DECEMBER 1979 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BOTTOM FISH	11	335.75	503.65	1.50
GROUPER	1	170.00	255.00	1.50
ONAGA (RED SNAPPER)	1	13.50	27.00	2.00
REEF FISH	10	260.50	399.98	1.54
TROLL FISH	1	47.00	58.75	1.25
BARRACUDA	5	67.00	83.75	1.25
DOLPHIN (MAHIMAHI)	29	655.25	819.06	1.25
RAINBOW RUNNER	8	81.00	101.20	1.25
WAHOO	25	986.00	1232.50	1.25
SKIPJACK TUNA	32	1186.75	1189.00	1.00
DOGTOOTH TUNA	3	82.50	103.13	1.25
YELLOWFIN TUNA	33	1108.75	1626.13	1.47
** SUBTOTAL **	159	4994.00	6399.15	
** 1979 TOTAL **	506	25607.45	31684.04	

Figure 1.1

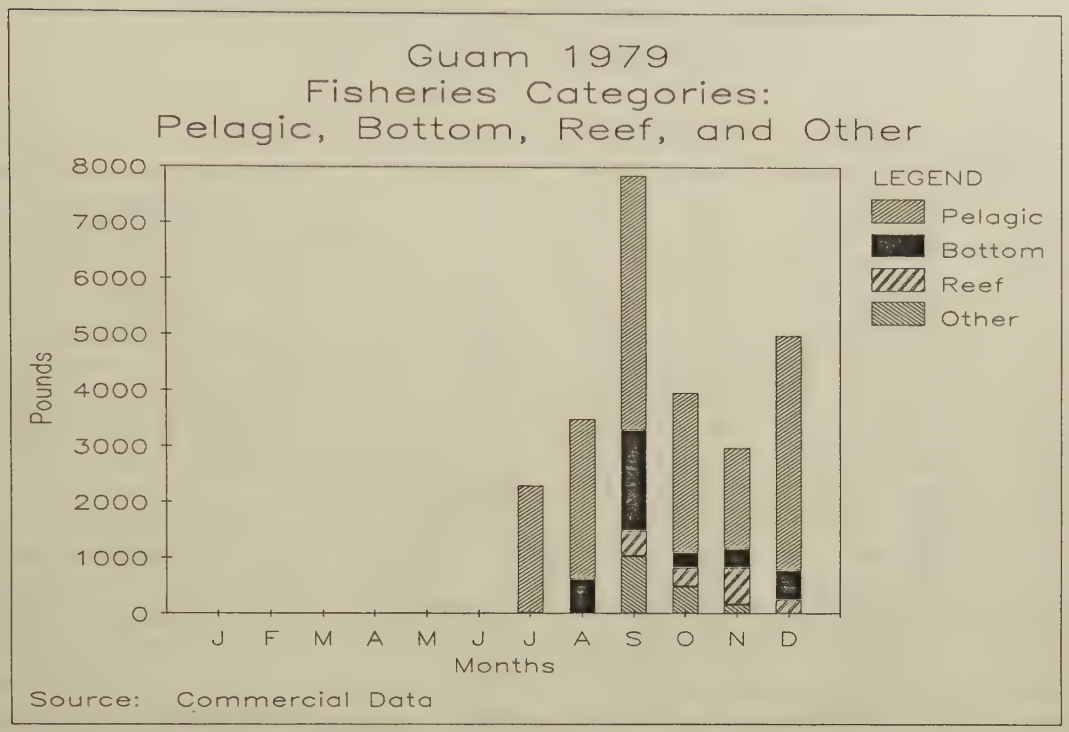


Figure 1.2

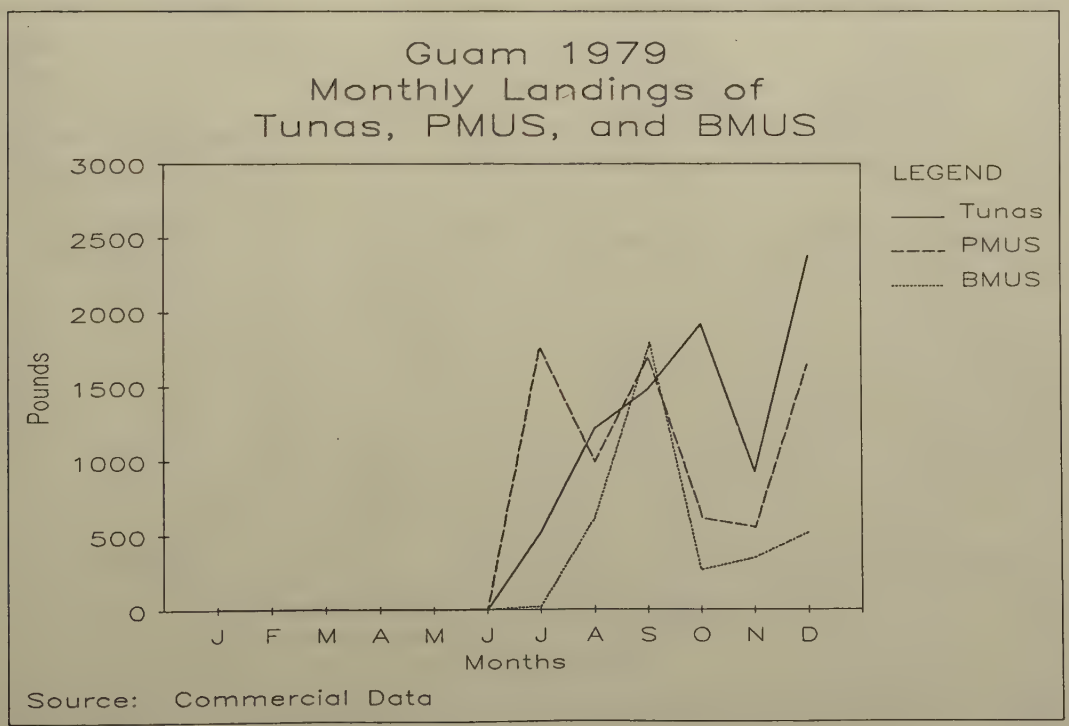


Figure 1.3

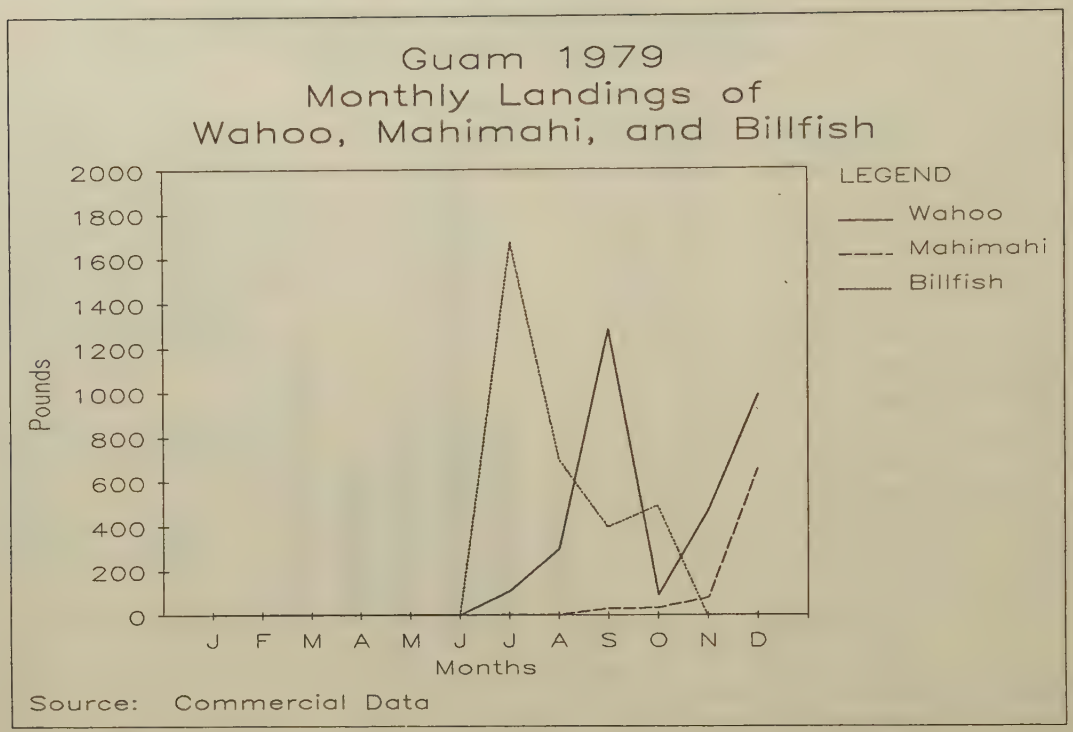


Figure 1.4

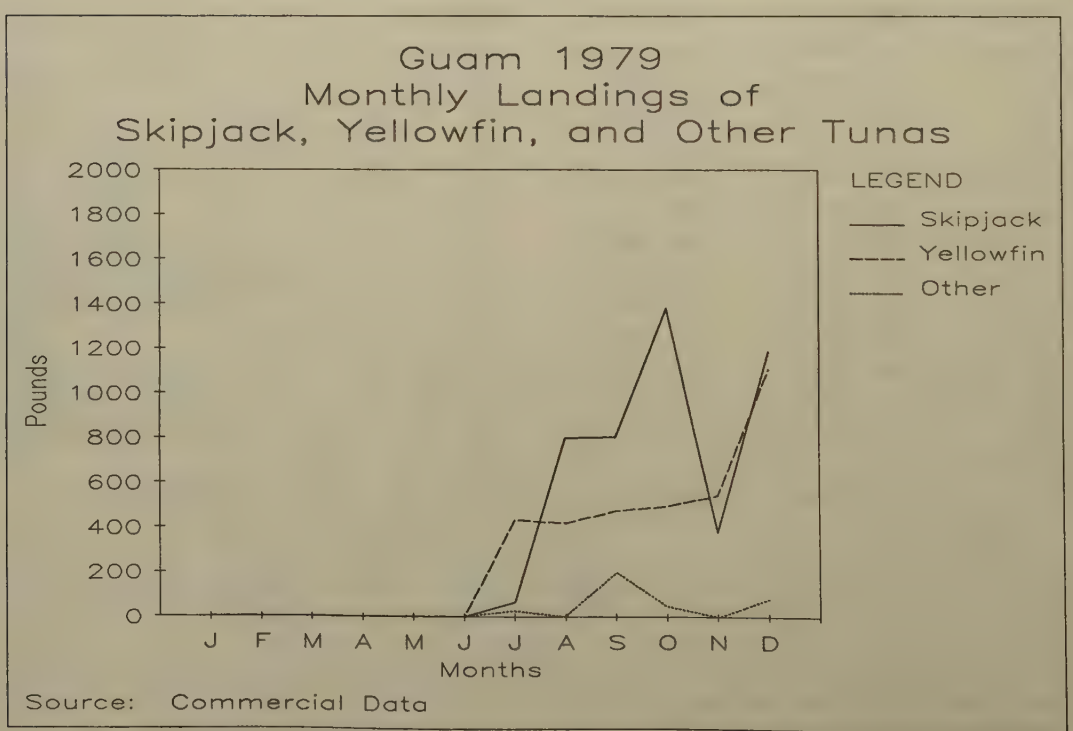


Table 2.1

GUAM 1980 ANNUAL COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	2	155.00	139.50	0.90
BIGEYE SCAD (ATULAI)	19	3475.50	4673.53	1.34
MULLET	1	39.00	58.50	1.50
BOTTOM FISH	105	4037.00	5031.46	1.25
GINDAI (FLOWER SNAP)	2	775.00	775.00	1.00
GROUPER	12	1450.00	1600.50	1.10
LEHI (SILVERJAW)	3	112.00	148.00	1.32
ONAGA (RED SNAPPER)	11	521.50	859.00	1.65
OPAKAPAKA (PINK SNP)	2	62.00	62.00	1.00
REEF FISH	127	4238.50	6157.06	1.45
EMPEROR (MAFUTE)	3	78.50	117.75	1.50
PARROTFISH	7	305.25	444.45	1.46
SNAPPER	4	39.75	52.60	1.32
UNICORNFISH	27	694.50	1207.37	1.74
TROLL FISH	12	392.50	581.25	1.48
BARRACUDA	76	1269.30	1874.17	1.48
DOLPHIN (MAHIMAHI)	334	26337.75	32968.00	1.25
MARLIN	111	14584.50	17468.00	1.20
SAILFISH	5	262.00	327.50	1.25
RAINBOW RUNNER	31	523.25	682.85	1.31
WAHOO	258	10630.50	15845.01	1.49
SKIPJACK TUNA	369	19044.50	19086.75	1.00
DOGTOOTH TUNA	32	924.25	1358.68	1.47
YELLOWFIN TUNA	309	14737.75	21677.66	1.47
CRABS	1	1.00	3.00	3.00
LOBSTER	11	206.00	721.03	3.50
OCTOPUS	2	10.75	21.50	2.00
SHRIMP (SALTWATER)	1	55.00	330.00	6.00
SEAWEEDS	1	51.00	38.25	0.75
** TOTAL **	1878	105013.55	134310.37	

Table 2.2

GUAM JANUARY 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BOTTOM FISH	11	202.50	303.80	1.50
GROUPER	1	4.50	6.75	1.50
REEF FISH	13	710.00	1065.00	1.50
PARROTFISH	3	113.25	169.85	1.50
TROLL FISH	3	117.50	176.25	1.50
BARRACUDA	6	113.00	149.25	1.32
DOLPHIN (MAHIMAHI)	49	2164.25	3215.68	1.49
MARLIN	1	134.00	167.50	1.25
RAINBOW RUNNER	4	36.50	54.75	1.50
WAHOO	18	622.00	904.25	1.45
SKIPJACK TUNA	23	483.75	483.75	1.00
DOGTOOTH TUNA	2	59.00	88.30	1.50
YELLOWFIN TUNA	16	491.50	737.25	1.50
** SUBTOTAL **	150	5251.75	7522.38	

Table 2.3

GUAM FEBRUARY 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	1	103.00	92.70	0.90
BOTTOM FISH	9	237.25	355.88	1.50
REEF FISH	11	225.25	337.85	1.50
BARRACUDA	1	14.50	21.75	1.50
DOLPHIN (MAHIMAHI)	92	9047.25	11684.93	1.29
RAINBOW RUNNER	1	8.0	12.00	1.50
WAHOO	22	1265.00	1897.50	1.50
SKIPJACK TUNA	25	534.75	534.75	1.00
DOGTOOTH TUNA	1	22.00	33.00	1.50
YELLOWFIN TUNA	14	431.00	646.50	1.50
** SUBTOTAL **	177	11888.00	15616.86	

Table 2.4

GUAM MARCH 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BOTTOM FISH	10	157.25	235.88	1.50
LEHI (SILVERJAW)	1	36.00	72.00	2.00
ONAGA (RED SNAPPER)	1	9.00	18.00	2.00
REEF FISH	5	104.50	156.75	1.50
BARRACUDA	7	52.75	79.10	1.50
DOLPHIN (MAHIMAHI)	73	8582.00	9704.35	1.13
MARLIN	5	377.00	471.25	1.25
RAINBOW RUNNER	1	7.00	10.50	1.50
WAHOO	21	816.00	1224.00	1.50
SKIPJACK TUNA	18	616.00	616.00	1.00
DOGTOOTH TUNA	2	26.00	39.00	1.50
YELLOWFIN TUNA	15	406.25	609.35	1.50
** SUBTOTAL **	159	11189.75	13236.18	

Table 2.5

GUAM APRIL 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	2	93.00	162.75	1.75
BOTTOM FISH	10	203.00	304.50	1.50
ONAGA (RED SNAPPER)	2	86.00	172.00	2.00
REEF FISH	13	432.25	648.38	1.50
PARROTFISH	1	71.00	106.50	1.50
TROLL FISH	1	19.00	28.50	1.50
BARRACUDA	11	351.00	526.48	1.50
DOLPHIN (MAHIMAHI)	56	4800.75	5906.38	1.23
MARLIN	3	355.00	443.75	1.25
RAINBOW RUNNER	4	37.75	56.60	1.50
WAHOO	16	369.00	553.50	1.50
SKIPJACK TUNA	33	1766.50	1766.50	1.00
DOGTOOTH TUNA	11	310.00	465.00	1.50
YELLOWFIN TUNA	19	637.00	955.50	1.50
** SUBTOTAL **	182	9531.25	12096.34	

Table 2.6

GUAM MAY 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	3	121.00	211.75	1.75
BOTTOM FISH	9	181.50	272.25	1.50
GROUPER	1	95.00	142.50	1.50
ONAGA (RED SNAPPER)	3	47.50	95.00	2.00
REEF FISH	12	512.75	769.13	1.50
SNAPPER	2	19.50	29.23	1.50
BARRACUDA	6	140.75	211.13	1.50
DOLPHIN (MAHIMAHI)	14	370.75	494.10	1.33
MARLIN	8	853.00	1066.25	1.25
RAINBOW RUNNER	2	24.00	36.00	1.50
WAHOO	13	349.00	523.50	1.50
SKIPJACK TUNA	49	3506.00	3512.00	1.00
DOGTOOTH TUNA	4	88.00	132.00	1.50
YELLOWFIN TUNA	26	956.00	1434.00	1.50
** SUBTOTAL **	153	7316.75	8975.64	

Table 2.7

GUAM JUNE 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MULLET	1	39.00	58.50	1.50
BOTTOM FISH	13	534.25	677.38	1.27
GINDAI (FLOWER SNAP)	1	16.00	16.00	1.00
GROUPER	1	60.00	60.00	1.00
LEHI (SILVERJAW)	1	38.00	38.00	1.00
ONAGA (RED SNAPPER)	1	28.00	56.00	2.00
OPAKAPAKA (PINK SNP)	1	52.00	52.00	1.00
REEF FISH	17	727.00	914.51	1.26
PARROTFISH	1	30.00	45.00	1.50
SNAPPER	1	14.00	14.00	1.00
TROLL FISH	1	36.00	54.00	1.50
BARRACUDA	3	40.50	60.75	1.50
DOLPHIN (MAHIMAHI)	2	51.00	70.00	1.37
MARLIN	15	1929.50	2411.88	1.25
RAINBOW RUNNER	2	124.00	144.00	1.16
WAHOO	9	190.50	283.75	1.49
SKIPJACK TUNA	21	1048.50	1048.50	1.00
DOGTOOTH TUNA	3	96.00	144.00	1.50
YELLOWFIN TUNA	15	880.00	1309.50	1.49
CRABS	1	1.00	3.00	3.00
LOBSTER	1	13.50	47.25	3.50
OCTOPUS	1	7.00	14.00	2.00
** SUBTOTAL **	112	5955.75	7522.02	

Table 2.8

GUAM JULY 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BOTTOM FISH	8	432.00	498.00	1.15
GROUPER	1	53.00	53.00	1.00
REEF FISH	11	290.50	435.78	1.50
TROLL FISH	1	5.00	7.50	1.50
BARRACUDA	7	85.55	118.83	1.39
DOLPHIN (MAHIMAHI)	4	140.50	199.50	1.42
MARLIN	17	2493.50	2851.27	1.14
RAINBOW RUNNER	1	2.00	3.00	1.50
WAHOO	9	275.00	397.50	1.45
SKIPJACK TUNA	32	1533.25	1540.50	1.00
DOGTOOTH TUNA	2	49.25	73.88	1.50
YELLOWFIN TUNA	32	1648.00	2430.50	1.47
LOBSTER	1	1.25	4.40	3.52
OCTOPUS	1	3.75	7.50	2.00
** SUBTOTAL **	128	7032.55	8641.16	

Table 2.9

GUAM AUGUST 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	3	255.25	315.13	1.23
BOTTOM FISH	17	923.50	1039.65	1.13
GROUPER	1	7.50	11.25	1.50
ONAGA (RED SNAPPER)	2	165.00	180.00	1.09
REEF FISH	13	452.50	687.24	1.52
EMPEROR (MAFUTE)	2	69.50	104.25	1.50
PARROTFISH	1	67.00	87.10	1.30
UNICORNFISH	3	89.25	156.19	1.75
TROLL FISH	1	17.00	25.50	1.50
BARRACUDA	9	165.75	248.63	1.50
DOLPHIN (MAHIMAHI)	1	18.00	27.00	1.50
MARLIN	18	2338.00	2842.50	1.22
RAINBOW RUNNER	5	62.00	93.00	1.50
WAHOO	16	399.25	588.88	1.47
SKIPJACK TUNA	56	2221.75	2250.75	1.01
DOGTOOTH TUNA	2	76.00	114.00	1.50
YELLOWFIN TUNA	54	2704.50	3981.75	1.47
LOBSTER	5	128.50	449.75	3.50
** SUBTOTAL **	209	10160.25	13202.57	

Table 2.10

GUAM SEPTEMBER 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	2	1410.00	1912.00	1.36
BOTTOM FISH	6	181.00	254.00	1.40
GROUPER	3	236.00	262.00	1.11
OPAKAPAKA (PINK SNP)	1	10.00	10.00	1.00
REEF FISH	6	179.25	253.90	1.42
PARROTFISH	1	24.00	36.00	1.50
UNICORNFISH	8	145.75	247.05	1.70
TROLL FISH	1	141.00	211.50	1.50
BARRACUDA	4	43.00	64.50	1.50
DOLPHIN (MAHIMAHI)	1	29.00	43.50	1.50
MARLIN	12	1532.00	1861.25	1.21
RAINBOW RUNNER	4	45.00	56.50	1.26
WAHOO	26	1228.00	1842.00	1.50
SKIPJACK TUNA	39	2155.00	2155.00	1.00
DOGTOOTH TUNA	3	111.00	166.50	1.50
YELLOWFIN TUNA	40	2373.00	3559.56	1.50
LOBSTER	4	62.75	219.63	3.50
** SUBTOTAL **	161	9905.75	13154.89	

Table 2.11

GUAM OCTOBER 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	1	1188.00	1485.00	1.25
BOTTOM FISH	6	465.50	523.25	1.12
GROUPER	2	382.00	453.00	1.19
REEF FISH	7	143.25	217.37	1.52
UNICORNFISH	4	78.00	136.51	1.75
TROLL FISH	2	28.00	34.50	1.23
BARRACUDA	7	93.00	139.50	1.50
DOLPHIN (MAHIMAHI)	7	123.25	183.06	1.49
MARLIN	12	1693.00	2030.00	1.20
RAINBOW RUNNER	3	30.00	45.00	1.50
WAHOO	16	636.75	955.13	1.50
SKIPJACK TUNA	27	1300.25	1300.25	1.00
DOGTOOTH TUNA	1	32.00	48.00	1.50
YELLOWFIN TUNA	37	2191.50	3187.75	1.45
** SUBTOTAL **	132	8384.50	10738.32	

Table 2.12

GUAM NOVEMBER 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	4	340.00	492.00	1.45
BOTTOM FISH	4	500.75	539.12	1.08
GINDAI (FLOWER SNAP)	1	759.00	759.00	1.00
GROUPER	2	612.00	612.00	1.00
LEHI (SILVERJAW)	1	38.00	38.00	1.00
ONAGA (RED SNAPPER)	2	186.00	338.00	1.82
REEF FISH	16	400.00	579.30	1.45
SNAPPER	1	6.25	9.37	1.50
UNICORNFISH	6	148.00	259.00	1.75
BARRACUDA	7	89.00	133.50	1.50
DOLPHIN (MAHIMAHI)	12	387.00	503.50	1.30
MARLIN	12	1687.00	1965.00	1.16
SAILFISH	5	262.00	327.50	1.25
RAINBOW RUNNER	3	135.00	153.50	1.14
WAHOO	35	1598.00	2352.00	1.47
SKIPJACK TUNA	26	2449.50	2449.50	1.00
DOGTOOTH TUNA	1	55.00	55.00	1.00
YELLOWFIN TUNA	20	1236.00	1651.50	1.34
SHRIMP (SALTWATER)	1	55.00	330.00	6.00
SEAWEEDS	1	51.00	38.25	0.75
** SUBTOTAL **	160	10994.50	13585.04	

Table 2.13

GUAM DECEMBER 1980 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	3	48.25	74.90	1.55
BOTTOM FISH	2	18.50	27.75	1.50
REEF FISH	3	61.25	91.85	1.50
EMPEROR (MAFUTE)	1	9.00	13.50	1.50
UNICORNFISH	6	233.50	408.62	1.75
TROLL FISH	2	29.00	43.50	1.50
BARRACUDA	8	80.50	120.75	1.50
DOLPHIN (MAHIMAHI)	23	624.00	936.00	1.50
MARLIN	8	1192.50	1357.35	1.14
RAINBOW RUNNER	1	12.00	18.00	1.50
WAHOO	57	2882.00	4323.00	1.50
SKIPJACK TUNA	20	1429.25	1429.25	1.00
YELLOWFIN TUNA	21	783.00	1174.50	1.50
** SUBTOTAL **	155	7402.75	10018.97	
** 1980 TOTAL **	1878	105013.55	134310.37	

Figure 2.1

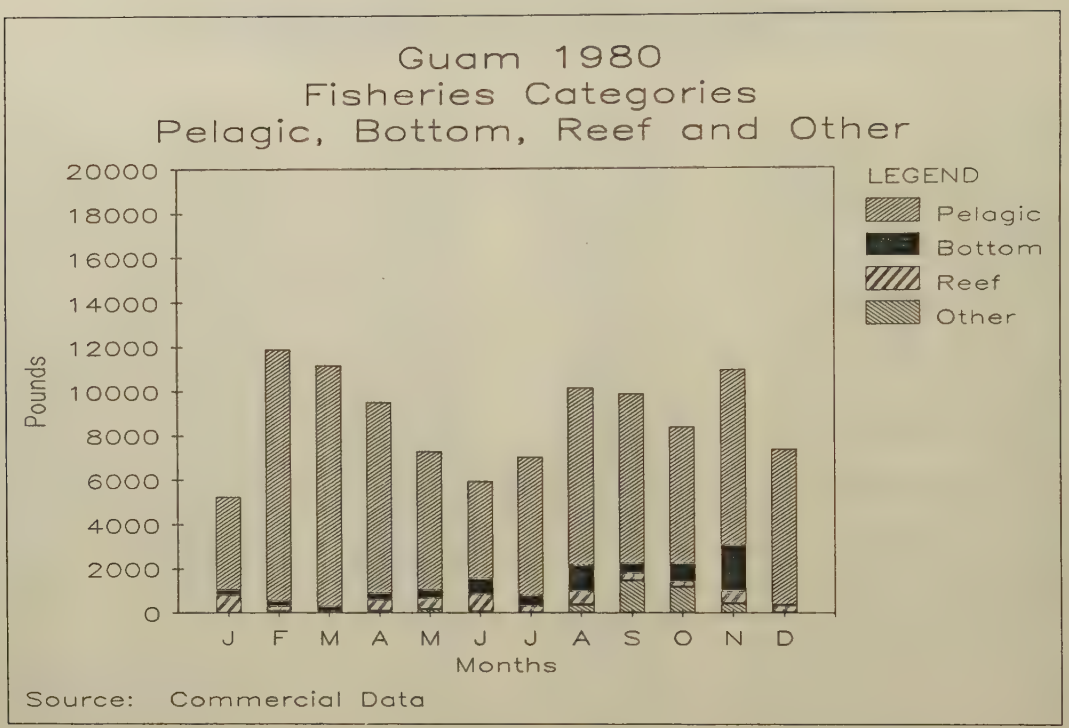


Figure 2.2

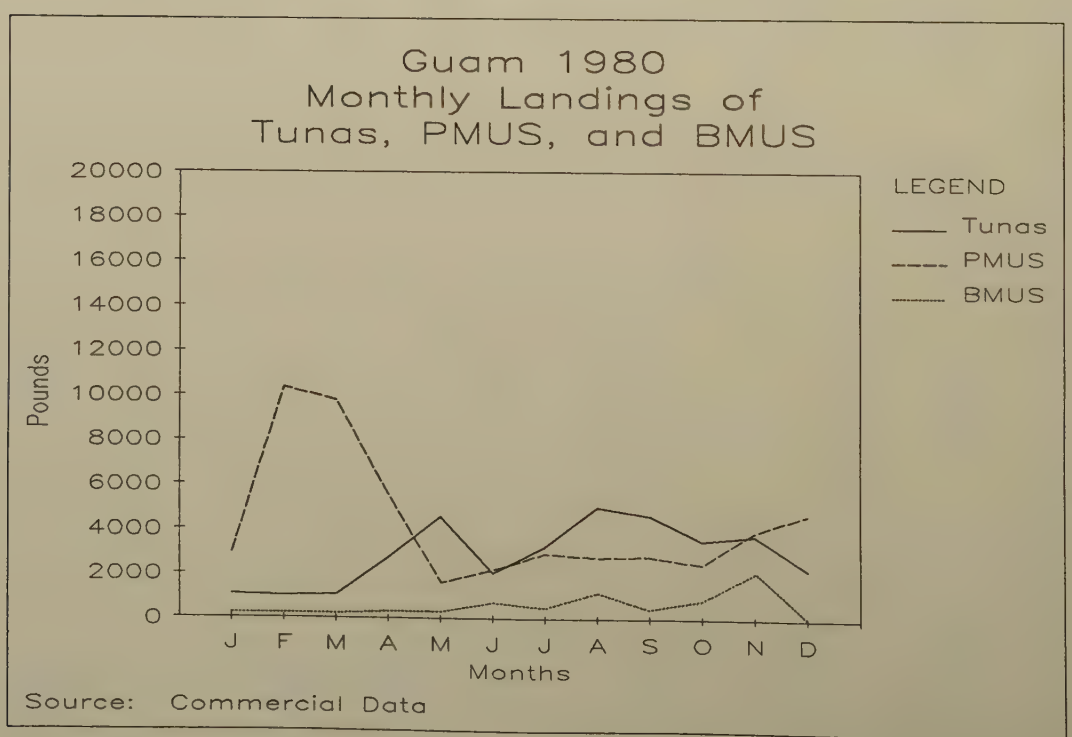


Figure 2.3

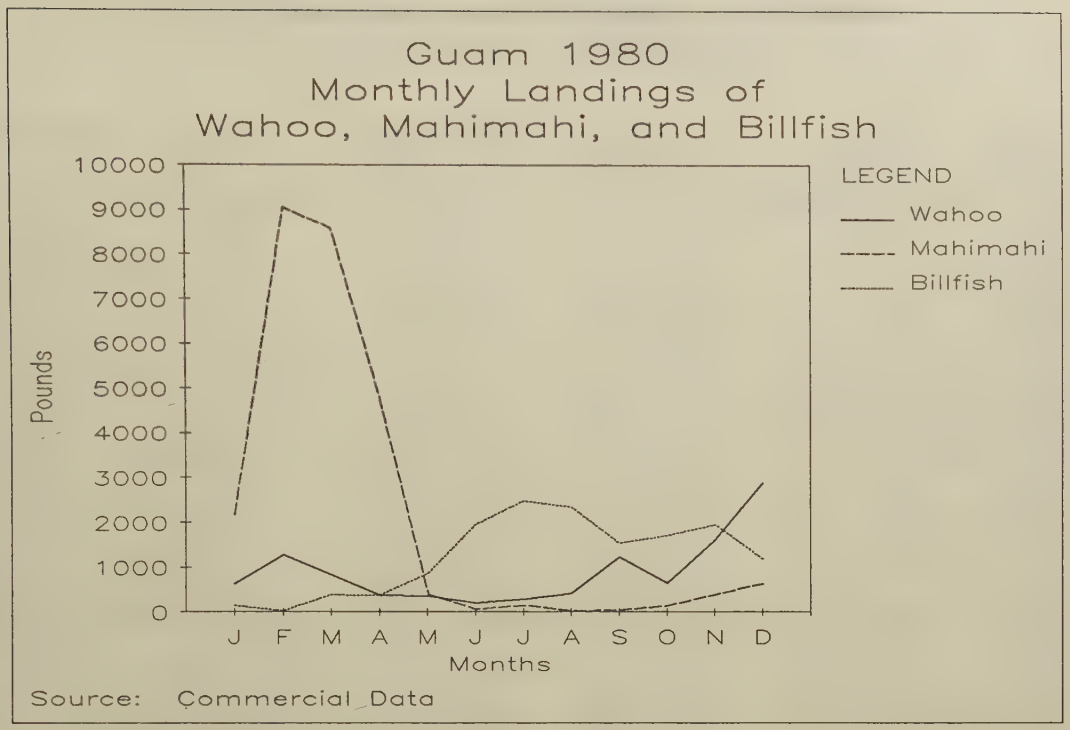


Figure 2.4

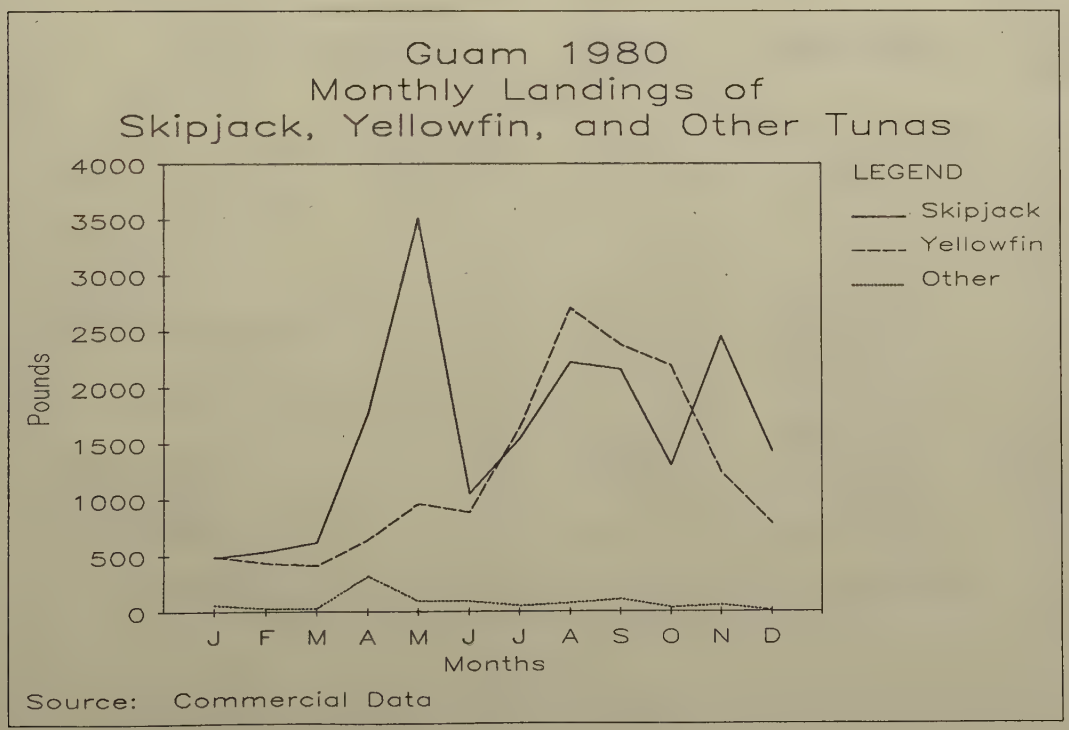


Table 3.1

GUAM 1981 ANNUAL COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	68	4158.19	8650.14	2.08
MULLET	2	199.00	328.20	1.65
SHARKS	9	379.32	189.66	0.50
BOTTOM FISH	176	6506.27	11362.18	1.75
GROUPER	8	768.00	1342.75	1.75
LEHI (SILVERJAW)	17	487.00	974.00	2.00
ONAGA (RED SNAPPER)	30	606.16	1193.03	1.97
REEF FISH	98	2665.46	4597.25	1.72
PARROTFISH	2	77.00	134.75	1.75
SNAPPER	3	109.00	188.25	1.73
UNICORNFISH	2	55.75	95.62	1.72
TROLL FISH	1	26.00	39.00	1.50
BARRACUDA	127	2186.81	3301.72	1.51
DOLPHIN (MAHIMAHI)	312	15540.47	23260.70	1.50
MARLIN	142	21634.50	25416.85	1.17
SAILFISH	11	587.00	769.75	1.31
RAINBOW RUNNER	118	2256.14	3393.33	1.50
WAHOO	467	27304.75	40932.88	1.50
SKIPJACK TUNA	451	29498.54	29574.54	1.00
DOGTOOTH TUNA	39	2050.51	3072.01	1.50
YELLOWFIN TUNA	534	28284.41	44757.00	1.58
INVERTEBRATES	2	86.00	471.50	5.48
LOBSTER	19	319.34	1123.70	3.52
OCTOPUS	4	20.50	42.55	2.08
SHRIMP (SALTWATER)	6	154.41	937.16	6.07
SQUID	1	9.16	13.74	1.50
** TOTAL **	2649	145969.69	206162.26	

Table 3.2

GUAM JANUARY 1981 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	3	39.25	62.86	1.60
SHARKS	1	35.00	17.50	0.50
BOTTOM FISH	6	156.00	246.92	1.58
REEF FISH	4	150.75	226.12	1.50
UNICORNFISH	1	7.75	11.62	1.50
BARRACUDA	8	87.00	130.50	1.50
DOLPHIN (MAHIMAHI)	40	1662.00	2493.00	1.50
MARLIN	11	1392.00	1686.75	1.21
RAINBOW RUNNER	3	66.00	99.00	1.50
WAHOO	58	2594.50	3891.75	1.50
SKIPJACK TUNA	47	2987.00	3004.50	1.01
DOGTOOTH TUNA	1	22.00	33.00	1.50
YELLOWFIN TUNA	42	1677.75	2534.62	1.51
INVERTEBRATES	2	86.00	471.50	5.48
OCTOPUS	1	7.00	21.00	3.00
SHRIMP (SALTWATER)	1	83.50	501.00	6.00
** SUBTOTAL **	229	11053.50	15431.64	

Table 3.3

GUAM FEBRUARY 1981 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BOTTOM FISH	1	16.00	24.00	1.50
REEF FISH	3	50.60	75.90	1.50
BARRACUDA	9	102.50	158.25	1.54
DOLPHIN (MAHIMAHI)	60	3726.00	5589.00	1.50
MARLIN	4	739.00	842.50	1.14
RAINBOW RUNNER	1	4.00	6.00	1.50
WAHOO	43	2939.00	4408.50	1.50
SKIPJACK TUNA	16	589.50	589.50	1.00
DOGTOOTH TUNA	1	21.50	32.25	1.50
YELLOWFIN TUNA	32	1323.00	2046.50	1.55
** SUBTOTAL **	170	9511.10	13772.40	

Table 3.4

GUAM MARCH 1981 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BOTTOM FISH	4	88.00	153.99	1.75
GROUPER	1	5.00	7.50	1.50
REEF FISH	5	60.25	101.64	1.69
BARRACUDA	7	78.50	117.75	1.50
DOLPHIN (MAHIMAHI)	74	5324.25	7986.37	1.50
MARLIN	4	583.00	657.50	1.13
SAILFISH	2	96.00	137.00	1.43
RAINBOW RUNNER	5	49.75	74.62	1.50
WAHOO	55	4158.50	6209.75	1.49
SKIPJACK TUNA	21	836.50	836.50	1.00
DOGTOOTH TUNA	3	46.50	69.75	1.50
YELLOWFIN TUNA	44	1921.00	2945.25	1.53
OCTOPUS	1	7.00	11.55	1.65
** SUBTOTAL **	226	13254.25	19309.17	

Table 3.5

GUAM APRIL 1981 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BOTTOM FISH	4	67.25	117.68	1.75
ONAGA (RED SNAPPER)	1	31.00	62.00	2.00
REEF FISH	1	28.50	49.87	1.75
SNAPPER	2	25.00	41.25	1.65
BARRACUDA	7	190.00	285.00	1.50
DOLPHIN (MAHIMAHI)	32	2249.00	3373.50	1.50
MARLIN	2	219.00	273.75	1.25
SAILFISH	1	19.00	28.50	1.50
RAINBOW RUNNER	3	200.50	304.87	1.52
WAHOO	23	1412.75	2119.13	1.50
SKIPJACK TUNA	26	1279.50	1305.50	1.02
DOGTOOTH TUNA	1	49.00	49.00	1.00
YELLOWFIN TUNA	20	532.50	814.50	1.53
** SUBTOTAL **	123	6303.00	8824.55	

Table 3.6

GUAM MAY 1981 MONTHLY COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	5	605.00	1270.50	2.10
SHARKS	1	66.00	33.00	0.50
BOTTOM FISH	16	568.00	991.75	1.75
GROUPER	2	284.00	497.00	1.75
LEHI (SILVERJAW)	1	21.00	42.00	2.00
ONAGA (RED SNAPPER)	7	137.16	255.03	1.86
REEF FISH	25	523.08	900.32	1.72
PARROTFISH	1	44.00	77.00	1.75
BARRACUDA	12	332.68	499.03	1.50
DOLPHIN (MAHIMAHI)	23	964.00	1399.75	1.45
MARLIN	13	1954.00	2330.00	1.19
RAINBOW RUNNER	14	405.50	608.25	1.50
WAHOO	27	996.50	1494.75	1.50
SKIPJACK TUNA	56	3632.22	3632.22	1.00
DOGTOOTH TUNA	4	443.00	685.25	1.55
YELLOWFIN TUNA	61	3720.50	5613.53	1.51
LOBSTER	1	24.00	90.00	3.75
OCTOPUS	1	5.50	8.25	1.50
SHRIMP (SALTWATER)	2	29.11	174.66	6.00
** SUBTOTAL **	272	14755.25	20602.29	

Table 3.7

GUAM JUNE 1981 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	7	558.00	1171.80	2.10
SHARKS	2	91.00	45.50	0.50
BOTTOM FISH	14	576.50	1018.75	1.77
GROUPER	2	296.00	518.00	1.75
REEF FISH	15	475.60	831.73	1.75
SNAPPER	1	84.00	147.00	1.75
BARRACUDA	8	185.32	277.98	1.50
DOLPHIN (MAHIMAHI)	9	177.00	265.50	1.50
MARLIN	21	2620.50	3194.37	1.22
RAINBOW RUNNER	22	678.55	1017.83	1.50
WAHOO	25	672.00	1008.00	1.50
SKIPJACK TUNA	58	3245.37	3245.37	1.00
DOGTOOTH TUNA	7	595.00	892.50	1.50
YELLOWFIN TUNA	68	3463.16	5513.36	1.59
LOBSTER	3	29.78	104.23	3.50
SHRIMP (SALTWATER)	1	10.00	65.00	6.50
** SUBTOTAL **	263	13757.78	19316.92	

Table 3.8

GUAM JULY 1981 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	8	651.00	1367.10	2.10
SHARKS	1	7.00	3.50	0.50
BOTTOM FISH	22	1064.39	1861.34	1.75
LEHI (SILVERJAW)	1	14.00	28.00	2.00
ONAGA (RED SNAPPER)	2	45.00	90.00	2.00
REEF FISH	10	421.53	737.68	1.75
BARRACUDA	10	108.52	162.78	1.50
DOLPHIN (MAHIMAHI)	3	44.00	66.00	1.50
MARLIN	39	6015.00	7034.23	1.17
SAILFISH	1	49.00	61.25	1.25
RAINBOW RUNNER	20	195.34	293.01	1.50
WAHOO	27	735.50	1103.25	1.50
SKIPJACK TUNA	36	1279.35	1281.85	1.00
DOGTOOTH TUNA	2	72.00	108.00	1.50
YELLOWFIN TUNA	89	5664.50	9237.44	1.63
LOBSTER	9	182.07	637.25	3.50
** SUBTOTAL **	280	16548.20	24072.68	

Table 3.9

GUAM AUGUST 1981 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	4	699.00	1467.50	2.10
MULLET	2	199.00	328.20	1.65
SHARKS	3	178.00	89.00	0.50
BOTTOM FISH	31	1054.97	1846.21	1.75
GROUPER	1	65.00	113.75	1.75
LEHI (SILVERJAW)	4	194.00	388.00	2.00
ONAGA (RED SNAPPER)	6	159.00	318.00	2.00
REEF FISH	7	220.34	392.10	1.78
BARRACUDA	5	121.00	181.50	1.50
DOLPHIN (MAHIMAHI)	4	84.00	126.00	1.50
MARLIN	15	2518.00	2894.00	1.15
SAILFISH	1	72.00	90.00	1.25
RAINBOW RUNNER	11	89.00	133.50	1.50
WAHOO	28	1519.00	2278.50	1.50
SKIPJACK TUNA	43	2858.00	2858.00	1.00
DOGTOOTH TUNA	1	25.00	37.50	1.50
YELLOWFIN TUNA	44	2331.00	3883.00	1.67
LOBSTER	3	61.92	216.72	3.50
** SUBTOTAL **	213	12448.23	17641.48	

Table 3.10

GUAM SEPTEMBER 1981 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	14	537.66	1077.39	2.00
BOTTOM FISH	23	692.75	1212.31	1.75
GROUPER	1	70.00	122.50	1.75
LEHI (SILVERJAW)	5	141.00	282.00	2.00
ONAGA (RED SNAPPER)	1	12.00	24.00	2.00
REEF FISH	11	316.50	557.20	1.76
UNICORNFISH	1	48.00	84.00	1.75
BARRACUDA	20	319.11	492.41	1.54
DOLPHIN (MAHIMAHI)	7	96.00	144.00	1.50
MARLIN	10	1523.00	1821.25	1.20
SAILFISH	4	251.00	313.75	1.25
RAINBOW RUNNER	16	219.00	328.50	1.50
WAHOO	29	1256.00	1884.00	1.50
SKIPJACK TUNA	48	4131.00	4131.00	1.00
DOGTOOTH TUNA	9	282.00	423.00	1.50
YELLOWFIN TUNA	47	2870.00	4720.50	1.64
LOBSTER	3	21.57	75.50	3.50
OCTOPUS	1	1.00	1.75	1.75
SHRIMP (SALTWATER)	1	25.00	162.50	6.50
** SUBTOTAL **	251	12812.59	17857.56	

Table 3.11

GUAM OCTOBER 1981 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	20	642.78	1342.44	2.09
BOTTOM FISH	20	868.17	1519.32	1.75
LEHI (SILVERJAW)	1	9.00	18.00	2.00
ONAGA (RED SNAPPER)	3	54.00	108.00	2.00
REEF FISH	11	212.05	371.13	1.75
PARROTFISH	1	33.00	57.75	1.75
TROLL FISH	1	26.00	39.00	1.50
BARRACUDA	16	255.18	382.77	1.50
DOLPHIN (MAHIMAHI)	4	129.00	193.50	1.50
MARLIN	15	2503.00	2916.25	1.17
RAINBOW RUNNER	11	178.50	267.75	1.50
WAHOO	25	1562.00	2343.00	1.50
SKIPJACK TUNA	29	3146.00	3146.00	1.00
DOGTOOTH TUNA	4	374.00	561.00	1.50
YELLOWFIN TUNA	37	2687.00	4301.50	1.60
SQUID	1	9.16	13.74	1.50
** SUBTOTAL **	199	12688.84	17581.15	

Table 3.12

GUAM NOVEMBER 1981 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	4	258.00	538.80	2.09
BOTTOM FISH	25	1023.24	1790.66	1.75
GROUPER	1	48.00	84.00	1.75
LEHI (SILVERJAW)	5	108.00	216.00	2.00
ONAGA (RED SNAPPER)	9	158.00	316.00	2.00
REEF FISH	4	184.38	315.27	1.71
BARRACUDA	16	248.00	372.00	1.50
DOLPHIN (MAHIMAHI)	35	815.00	1218.75	1.50
MARLIN	7	1181.00	1379.25	1.17
SAILFISH	2	100.00	139.25	1.39
RAINBOW RUNNER	10	144.00	216.00	1.50
WAHOO	90	7205.00	10807.50	1.50
SKIPJACK TUNA	41	3431.00	3461.00	1.01
DOGTOOTH TUNA	4	113.00	169.50	1.50
YELLOWFIN TUNA	26	918.00	1312.05	1.43
** SUBTOTAL **	279	15934.62	22336.03	

Table 3.13

GUAM DECEMBER 1981 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	3	167.50	351.75	2.10
SHARKS	1	2.32	1.16	0.50
BOTTOM FISH	10	331.00	579.25	1.75
ONAGA (RED SNAPPER)	1	10.00	20.00	2.00
REEF FISH	2	21.88	38.29	1.75
BARRACUDA	9	159.00	241.75	1.52
DOLPHIN (MAHIMAHI)	21	270.22	405.33	1.50
MARLIN	1	387.00	387.00	1.00
RAINBOW RUNNER	2	26.00	44.00	1.69
WAHOO	37	2254.00	3384.75	1.50
SKIPJACK TUNA	30	2083.10	2083.10	1.00
DOGTOOTH TUNA	2	7.51	11.26	1.50
YELLOWFIN TUNA	24	1176.00	1834.75	1.56
SHRIMP (SALTWATER)	1	6.80	34.00	5.00
** SUBTOTAL **	144	6902.33	9416.39	
** 1981 TOTAL **	2649	145969.69	206162.26	

Figure 3.1

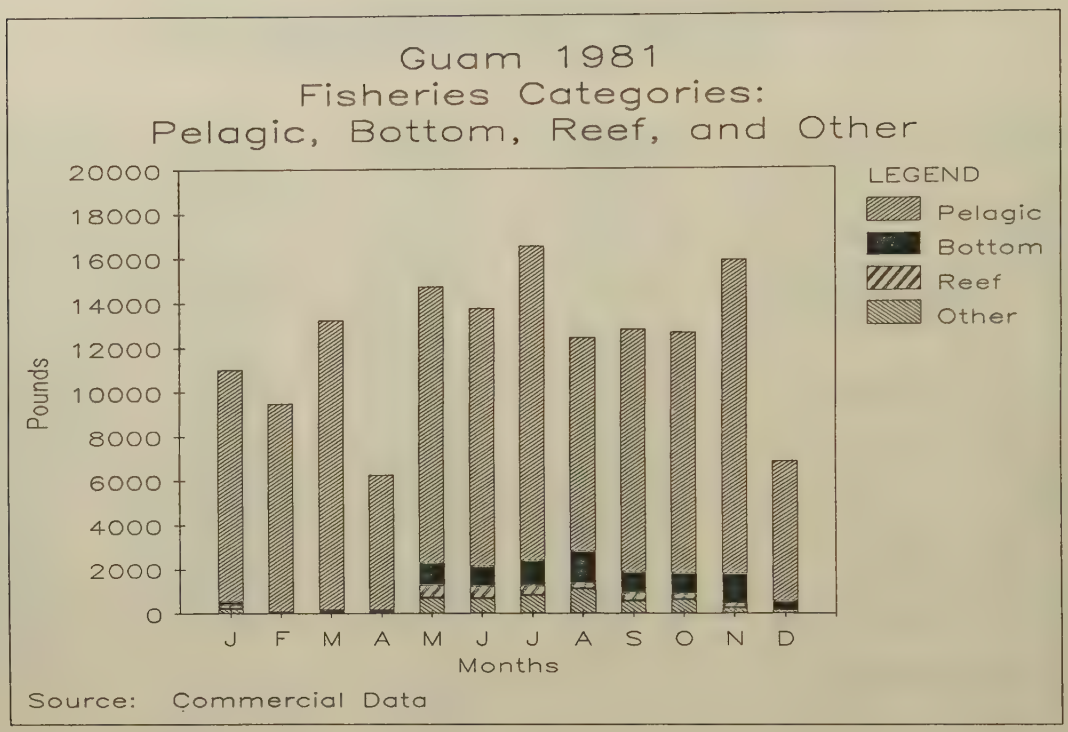


Figure 3.2

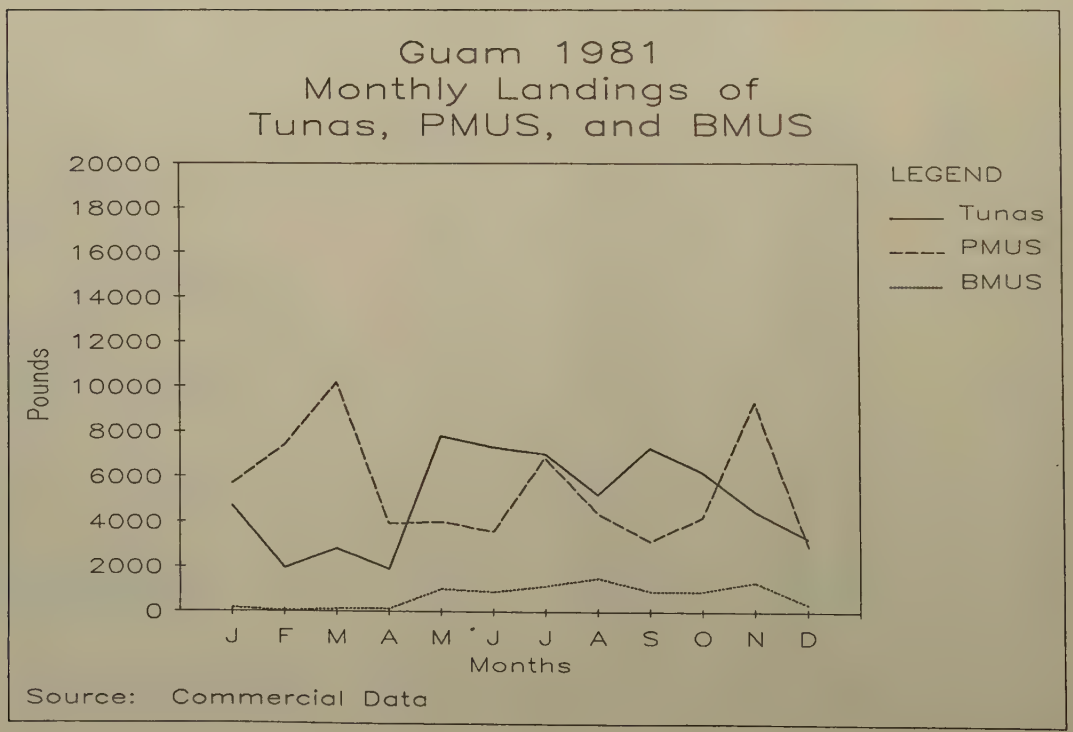


Figure 3.3

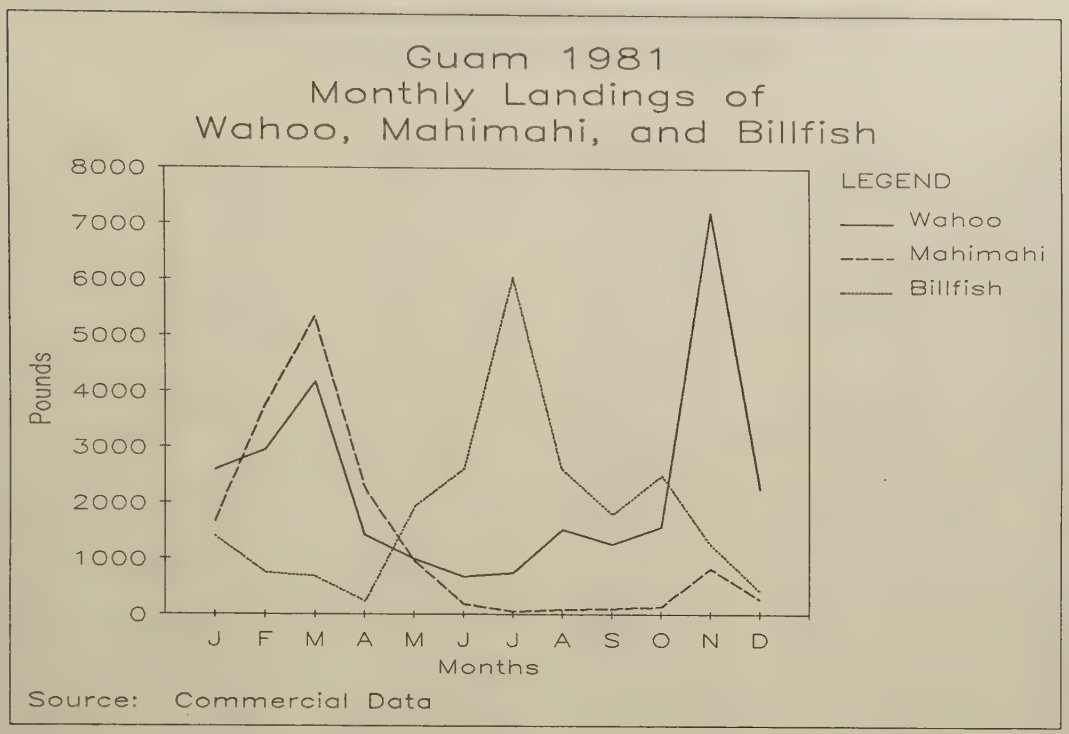


Figure 3.4

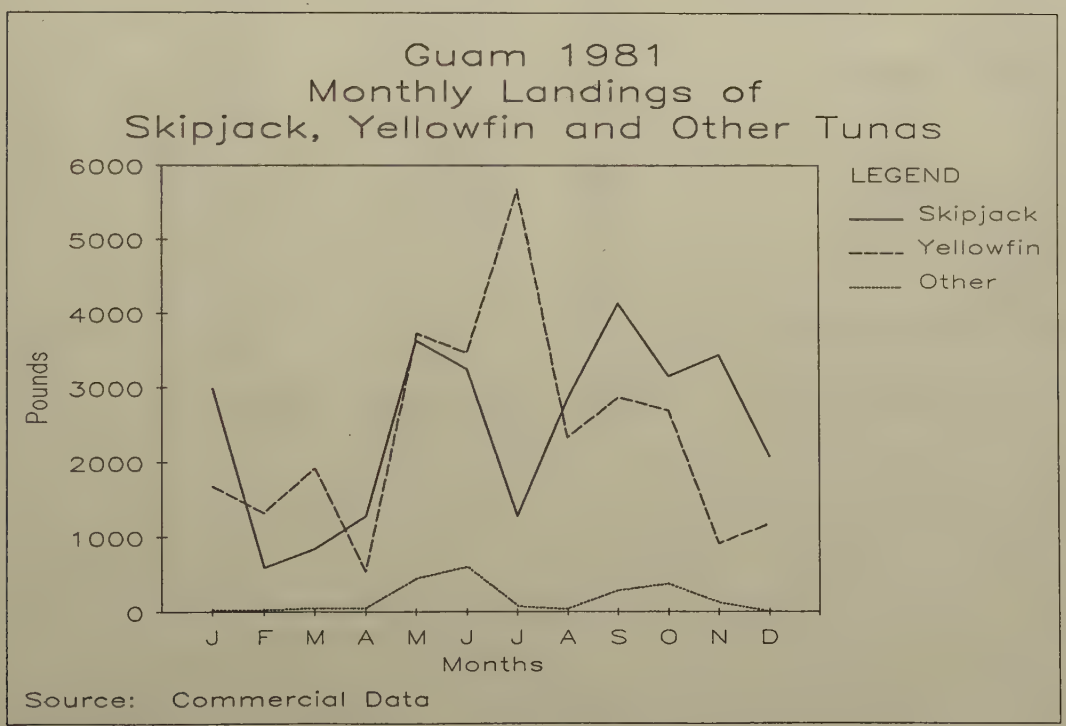


Table 4.1

GUAM 1982 ANNUAL COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
UNKNOWN	4	148.25	249.00	1.68
ASSORTED	1	6.00	12.00	2.00
MISCELLANEOUS	17	326.25	605.50	1.86
BIGEYE SCAD (ATULAI)	13	1176.38	2144.98	1.82
JACKS	17	133.40	266.80	2.00
SHARKS	28	1130.50	569.25	0.50
BOTTOM FISH	95	3266.94	6261.90	1.92
GINDAI (FLOWER SNAP)	8	37.00	74.00	2.00
GROUPER	35	977.25	1809.25	1.85
LEHI (SILVERJAW)	17	481.75	963.50	2.00
ONAGA (RED SNAPPER)	9	125.00	258.00	2.06
OPAKAPAKA (PINK SNP)	11	176.29	352.58	2.00
REEF FISH	86	1499.79	2951.19	1.97
GIANT WRASSE	14	82.25	164.50	2.00
EMPEROR (MAFUTE)	34	427.00	854.00	2.00
PARROTFISH	11	243.76	441.86	1.81
SNAPPER	34	280.00	559.95	2.00
SURGEONFISH	4	23.50	47.00	2.00
UNICORNFISH	3	44.07	72.14	1.64
GOATFISH	15	35.35	70.70	2.00
TROLL FISH	12	283.00	489.25	1.73
BARRACUDA	126	2402.67	3632.34	1.51
DOLPHIN (MAHIMAHI)	452	34118.61	49313.81	1.45
MARLIN	92	13634.59	16068.88	1.18
SAILFISH	4	244.00	305.01	1.25
RAINBOW RUNNER	35	398.57	600.37	1.51
WAHOO	331	14479.50	21683.08	1.50
TUNAS	9	387.75	572.12	1.48
SKIPJACK TUNA	426	30384.21	29214.42	0.96
DOGTOOTH TUNA	66	2354.23	3497.13	1.49
YELLOWFIN TUNA	461	30722.76	47324.57	1.54
LOBSTER	2	5.00	17.50	3.50
OCTOPUS	10	42.63	74.60	1.75
SHRIMP (SALTWATER)	31	683.62	3420.77	5.00
** TOTAL **	2513	140761.87	194941.95	

Table 4.2

GUAM JANUARY 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	3	250.00	485.90	1.94
SHARKS	1	6.00	3.00	0.50
BOTTOM FISH	32	1082.90	2010.82	1.86
LEHI (SILVERJAW)	9	189.00	378.00	2.00
ONAGA (RED SNAPPER)	3	33.00	66.00	2.00
REEF FISH	4	73.00	136.00	1.86
EMPEROR (MAFUTE)	1	25.00	50.00	2.00
TROLL FISH	2	27.00	47.25	1.75
BARRACUDA	21	299.00	448.50	1.50
DOLPHIN (MAHIMAHI)	66	1921.63	2881.94	1.50
SAILFISH	1	23.00	28.75	1.25
RAINBOW RUNNER	3	13.00	19.50	1.50
WAHOO	67	2957.00	4502.00	1.52
SKIPJACK TUNA	37	2327.10	2327.10	1.00
DOGTOOTH TUNA	7	65.50	98.25	1.50
YELLOWFIN TUNA	27	932.00	1407.25	1.51
OCTOPUS	3	6.18	10.82	1.75
** SUBTOTAL **	287	10230.31	14901.08	

Table 4.3

GUAM FEBRUARY 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	1	26.00	39.00	1.50
SHARKS	1	4.00	6.00	1.50
BOTTOM FISH	6	119.08	238.16	2.00
REEF FISH	4	55.04	103.57	1.88
PARROTFISH	4	182.10	318.54	1.75
TROLL FISH	1	28.00	42.00	1.50
BARRACUDA	14	469.69	704.50	1.50
DOLPHIN (MAHIMAHI)	75	4472.06	6708.09	1.50
SAILFISH	1	54.00	67.50	1.25
RAINBOW RUNNER	1	3.00	4.50	1.50
WAHOO	24	1021.00	1531.50	1.50
SKIPJACK TUNA	19	661.00	696.75	1.05
DOGTOOTH TUNA	4	85.00	127.50	1.50
YELLOWFIN TUNA	12	419.50	632.50	1.51
** SUBTOTAL **	167	7599.47	11220.11	

Table 4.4

GUAM MARCH 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BOTTOM FISH	6	194.00	278.00	1.43
REEF FISH	6	70.88	136.26	1.92
TROLL FISH	3	87.00	147.75	1.70
BARRACUDA	8	199.00	296.50	1.49
DOLPHIN (MAHIMAHI)	158	21878.91	30894.28	1.41
MARLIN	2	189.00	214.00	1.13
SAILFISH	1	83.50	104.38	1.25
WAHOO	23	1189.00	1783.50	1.50
SKIPJACK TUNA	33	1349.00	1353.00	1.00
DOGTOOTH TUNA	3	122.00	183.00	1.50
YELLOWFIN TUNA	17	634.98	952.47	1.50
LOBSTER	1	2.50	8.75	3.50
OCTOPUS	1	5.00	8.75	1.75
SHRIMP (SALTWATER)	2	28.83	146.82	5.09
** SUBTOTAL **	264	26033.60	36507.46	

Table 4.5

GUAM APRIL 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	4	268.88	562.72	2.09
SHARKS	4	292.00	146.00	0.50
BOTTOM FISH	7	332.50	665.00	2.00
LEHI (SILVERJAW)	1	69.00	138.00	2.00
REEF FISH	7	108.08	212.16	1.96
BARRACUDA	4	146.00	219.00	1.50
DOLPHIN (MAHIMAHI)	29	1453.36	2180.04	1.50
MARLIN	5	664.00	764.25	1.15
WAHOO	10	242.00	363.00	1.50
SKIPJACK TUNA	29	3236.67	3236.67	1.00
DOGTOOTH TUNA	3	78.50	117.75	1.50
YELLOWFIN TUNA	14	605.50	908.25	1.50
SHRIMP (SALTWATER)	2	44.54	222.70	5.00
** SUBTOTAL **	119	7541.03	9735.54	

Table 4.6

GUAM MAY 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	2	133.00	279.30	2.10
SHARKS	5	184.00	92.00	0.50
BOTTOM FISH	9	304.81	602.62	1.98
GROUPER	1	57.00	99.75	1.75
ONAGA (RED SNAPPER)	1	10.00	28.00	2.80
REEF FISH	7	122.23	222.06	1.82
SNAPPER	2	39.00	78.00	2.00
BARRACUDA	11	163.55	245.33	1.50
DOLPHIN (MAHIMAHI)	31	1126.00	1689.00	1.50
MARLIN	7	968.00	1210.00	1.25
RAINBOW RUNNER	1	6.00	9.00	1.50
WAHOO	17	445.50	661.25	1.48
SKIPJACK TUNA	37	3147.19	3145.19	1.00
DOGTOOTH TUNA	4	106.23	159.35	1.50
YELLOWFIN TUNA	26	1969.00	2918.50	1.48
OCTOPUS	2	21.68	37.94	1.75
SHRIMP (SALTWATER)	20	537.10	2685.50	5.00
** SUBTOTAL **	183	9340.29	14162.79	

Table 4.7

GUAM JUNE 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
SHARKS	3	56.00	28.00	0.50
BOTTOM FISH	6	135.50	271.00	2.00
GINDAI (FLOWER SNAP)	1	4.00	8.00	2.00
LEHI (SILVERJAW)	1	12.00	24.00	2.00
ONAGA (RED SNAPPER)	3	60.00	120.00	2.00
OPAKAPAKA (PINK SNP)	1	12.50	25.00	2.00
REEF FISH	14	346.66	693.33	2.00
EMPEROR (MAFUTE)	1	2.95	5.90	2.00
SNAPPER	4	48.24	96.45	2.00
TROLL FISH	2	38.50	62.25	1.62
BARRACUDA	12	228.00	342.00	1.50
DOLPHIN (MAHIMAHI)	5	117.50	176.25	1.50
MARLIN	28	3893.50	4642.75	1.19
RAINBOW RUNNER	3	20.00	30.00	1.50
WAHOO	23	799.00	1198.50	1.50
SKIPJACK TUNA	64	5836.50	5730.14	0.98
DOGTOOTH TUNA	2	29.00	43.50	1.50
YELLOWFIN TUNA	79	5886.53	9372.04	1.59
OCTOPUS	2	5.67	9.91	1.75
SHRIMP (SALTWATER)	7	73.15	365.75	5.00
** SUBTOTAL **	261	17605.20	23244.77	

Table 4.8

GUAM JULY 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
SHARKS	1	43.00	21.50	0.50
BOTTOM FISH	6	150.00	300.00	2.00
LEHI (SILVERJAW)	1	42.00	84.00	2.00
ONAGA (RED SNAPPER)	1	11.00	22.00	2.00
REEF FISH	7	62.48	124.96	2.00
PARROTFISH	1	4.96	9.92	2.00
UNICORNFISH	1	2.07	4.14	2.00
TROLL FISH	3	44.50	74.00	1.66
BARRACUDA	7	80.68	121.02	1.50
DOLPHIN (MAHIMAHI)	2	17.45	26.18	1.50
MARLIN	16	2469.50	2949.12	1.19
RAINBOW RUNNER	4	29.67	44.50	1.50
WAHOO	17	376.50	564.75	1.50
SKIPJACK TUNA	36	2795.00	2431.99	0.87
DOGTOOTH TUNA	5	120.50	180.75	1.50
YELLOWFIN TUNA	54	3528.75	5647.31	1.60
** SUBTOTAL **	162	9778.06	12606.14	

Table 4.9

GUAM AUGUST 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	2	481.75	727.56	1.51
SHARKS	1	88.00	44.00	0.50
BOTTOM FISH	11	325.10	650.20	2.00
REEF FISH	11	195.00	390.00	2.00
TROLL FISH	1	58.00	116.00	2.00
BARRACUDA	9	130.25	195.35	1.50
DOLPHIN (MAHIMAHI)	2	9.00	13.50	1.50
MARLIN	13	2276.59	2543.75	1.12
RAINBOW RUNNER	4	89.75	134.62	1.50
WAHOO	12	505.50	758.25	1.50
SKIPJACK TUNA	27	1773.75	1678.35	0.95
DOGTOOTH TUNA	5	398.00	597.00	1.50
YELLOWFIN TUNA	47	3064.25	4551.98	1.49
** SUBTOTAL **	145	9394.94	12400.56	

Table 4.10

GUAM SEPTEMBER 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
UNKNOWN	2	96.25	145.00	1.51
ASSORTED	1	6.00	12.00	2.00
MISCELLANEOUS	2	6.75	13.50	2.00
JACKS	2	23.50	47.00	2.00
SHARKS	2	72.00	36.00	0.50
BOTTOM FISH	3	341.75	683.50	2.00
GINDAI (FLOWER SNAP)	4	16.75	33.50	2.00
GROUPER	7	391.00	698.00	1.79
LEHI (SILVERJAW)	2	55.00	110.00	2.00
ONAGA (RED SNAPPER)	1	11.00	22.00	2.00
OPAKAPAKA (PINK SNP)	4	71.50	143.00	2.00
REEF FISH	2	62.35	124.70	2.00
GIANT WRASSE	1	6.25	12.50	2.00
EMPEROR (MAFUTE)	8	104.75	209.50	2.00
PARROTFISH	3	8.45	16.90	2.00
SNAPPER	7	55.43	110.86	2.00
UNICORNFISH	1	10.00	20.00	2.00
GOATFISH	2	5.25	10.50	2.00
BARRACUDA	8	187.00	280.50	1.50
DOLPHIN (MAHIMAHI)	3	57.50	86.25	1.50
MARLIN	9	1533.00	1769.75	1.15
RAINBOW RUNNER	8	103.25	157.40	1.52
WAHOO	20	1092.00	1638.00	1.50
TUNAS	1	35.00	35.00	1.00
SKIPJACK TUNA	20	1226.25	1226.25	1.00
DOGTOOTH TUNA	9	384.00	571.90	1.49
YELLOWFIN TUNA	34	2041.00	3103.50	1.52
** SUBTOTAL **	166	8002.98	11317.01	

Table 4.11

GUAM OCTOBER 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
UNKNOWN	2	52.00	104.00	2.00
MISCELLANEOUS	10	240.75	481.50	2.00
BIGEYE SCAD (ATULAI)	1	40.00	84.00	2.10
JACKS	6	36.75	73.50	2.00
SHARKS	5	204.00	102.00	0.50
BOTTOM FISH	1	25.00	50.00	2.00
GINDAI (FLOWER SNAP)	3	16.25	32.50	2.00
GROUPER	11	369.00	691.00	1.87
LEHI (SILVERJAW)	2	82.75	165.50	2.00
OPAKAPAKA (PINK SNP)	5	91.58	183.16	2.00
REEF FISH	2	29.75	59.50	2.00
GIANT WRASSE	2	12.50	25.00	2.00
EMPEROR (MAFUTE)	9	133.00	266.00	2.00
PARROTFISH	1	3.25	6.50	2.00
SNAPPER	12	86.68	173.36	2.00
SURGEONFISH	2	18.00	36.00	2.00
GOATFISH	3	5.50	11.00	2.00
BARRACUDA	11	133.50	200.25	1.50
DOLPHIN (MAHIMAHI)	11	285.50	428.25	1.50
MARLIN	9	1309.50	1560.88	1.19
RAINBOW RUNNER	5	43.50	65.25	1.50
WAHOO	26	1821.75	2732.88	1.50
TUNAS	3	193.50	315.00	1.63
SKIPJACK TUNA	30	2008.00	2012.50	1.00
DOGTOOTH TUNA	8	534.50	801.75	1.50
YELLOWFIN TUNA	64	5623.25	8656.13	1.54
LOBSTER	1	2.50	8.75	3.50
** SUBTOTAL **	245	13402.26	19326.16	

Table 4.12

GUAM NOVEMBER 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	2	11.75	3.50	2.00
BIGEYE SCAD (ATULAI)	1	2.75	5.50	2.00
JACKS	4	28.50	57.00	2.00
SHARKS	2	96.50	48.25	0.50
BOTTOM FISH	5	216.25	432.50	2.00
GROUPER	6	43.50	87.00	2.00
REEF FISH	14	206.25	412.50	2.00
GIANT WRASSE	3	11.50	23.00	2.00
EMPEROR (MAFUTE)	6	71.75	143.50	2.00
PARROTFISH	1	44.00	88.00	2.00
SNAPPER	3	17.50	35.00	2.00
GOATFISH	3	12.75	25.50	2.00
BARRACUDA	7	117.25	175.88	1.50
DOLPHIN (MAHIMAHI)	31	1110.45	1665.68	1.50
MARLIN	2	225.50	281.88	1.25
RAINBOW RUNNER	3	48.15	72.23	1.50
WAHOO	54	2745.50	3995.38	1.46
TUNAS	4	79.25	102.12	1.29
SKIPJACK TUNA	45	2332.25	2332.25	1.00
DOGTOOTH TUNA	4	147.50	205.25	1.39
YELLOWFIN TUNA	32	1787.25	2884.02	1.61
OCTOPUS	1	2.50	4.38	1.75
** SUBTOTAL **	233	9358.60	13100.32	

Table 4.13

GUAM DECEMBER 1982 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	2	41.00	48.00	1.17
JACKS	5	44.65	89.30	2.00
SHARKS	3	85.00	42.50	0.50
BOTTOM FISH	3	40.05	80.10	2.00
GROUPER	10	116.75	233.50	2.00
LEHI (SILVERJAW)	1	32.00	64.00	2.00
OPAKAPAKA (PINK SNP)	1	0.71	1.42	2.00
REEF FISH	8	168.07	336.15	2.00
GIANT WRASSE	8	52.00	104.00	2.00
EMPEROR (MAFUTE)	9	89.55	179.10	2.00
PARROTFISH	1	1.00	2.00	2.00
SNAPPER	6	33.15	66.28	2.00
SURGEONFISH	2	5.50	11.00	2.00
UNICORNFISH	1	32.00	48.00	1.50
GOATFISH	7	11.85	23.70	2.00
BARRACUDA	14	248.75	403.51	1.62
DOLPHIN (MAHIMAHI)	39	1669.25	2564.35	1.54
MARLIN	1	106.00	132.50	1.25
SAILFISH	1	83.50	104.38	1.25
RAINBOW RUNNER	3	42.25	63.37	1.50
WAHOO	38	1284.75	1954.07	1.52
TUNAS	1	80.00	120.00	1.50
SKIPJACK TUNA	49	3691.50	3044.23	0.82
DOGTOOTH TUNA	12	283.50	411.13	1.45
YELLOWFIN TUNA	55	4230.75	6290.62	1.49
OCTOPUS	1	1.60	2.80	1.75
** SUBTOTAL **	281	12475.13	16420.01	
** 1982 TOTAL **	2513	140761.87	194941.95	

Figure 4.1

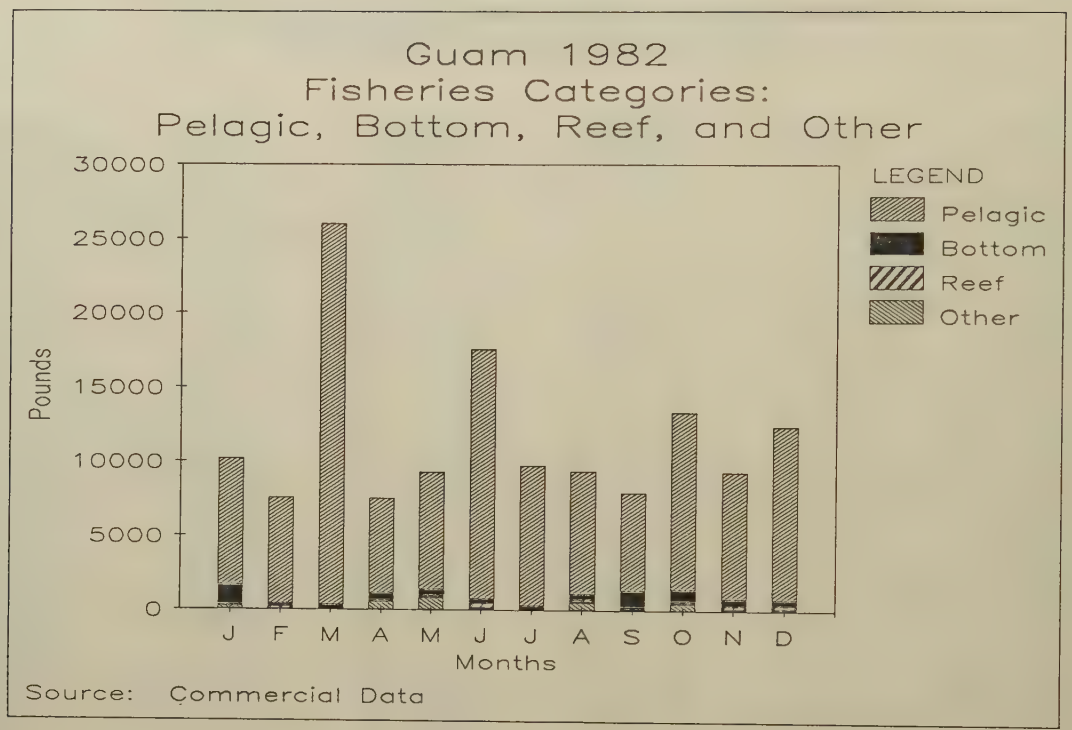


Figure 4.2

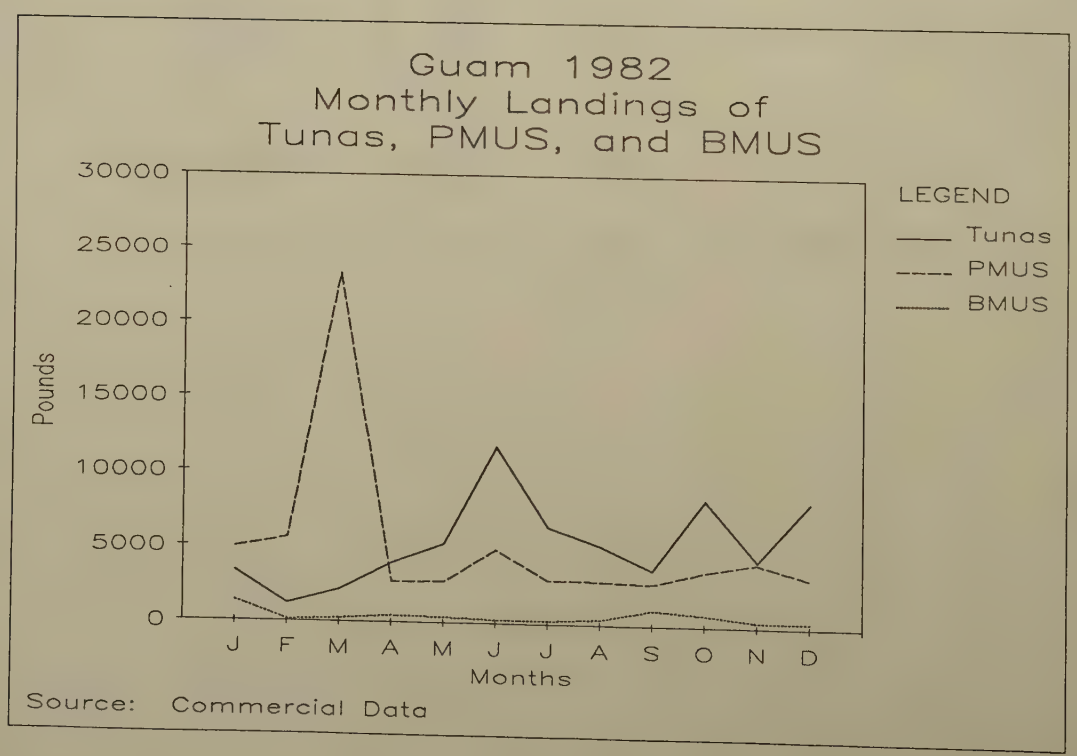


Figure 4.3

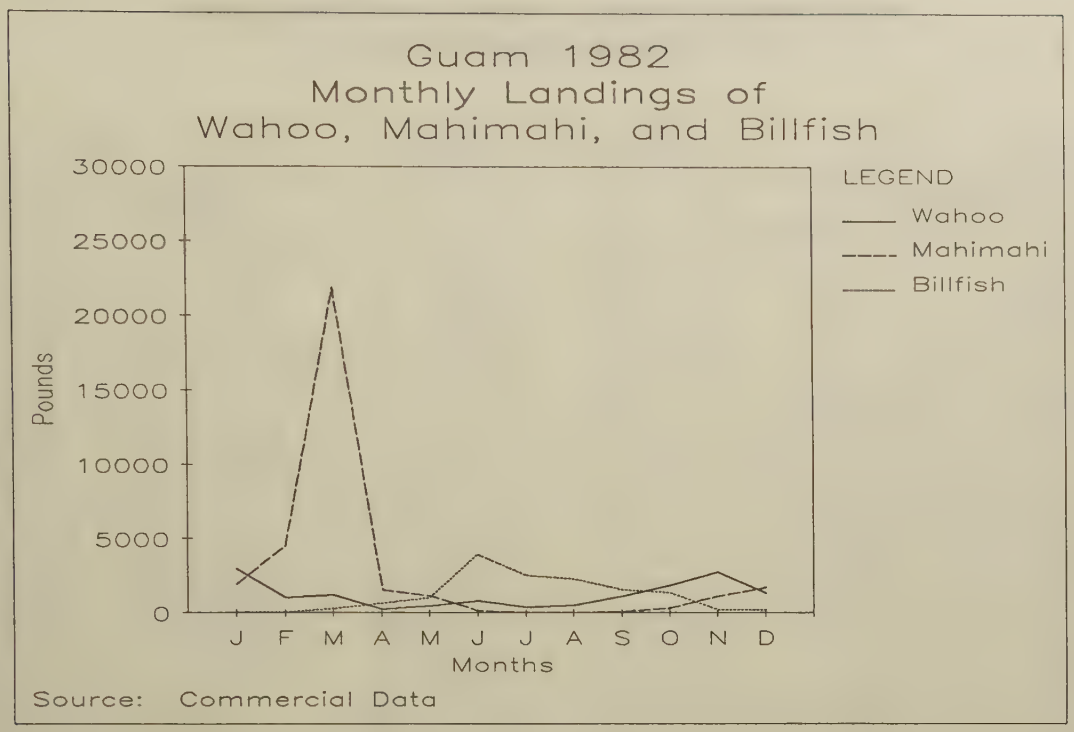


Figure 4.4

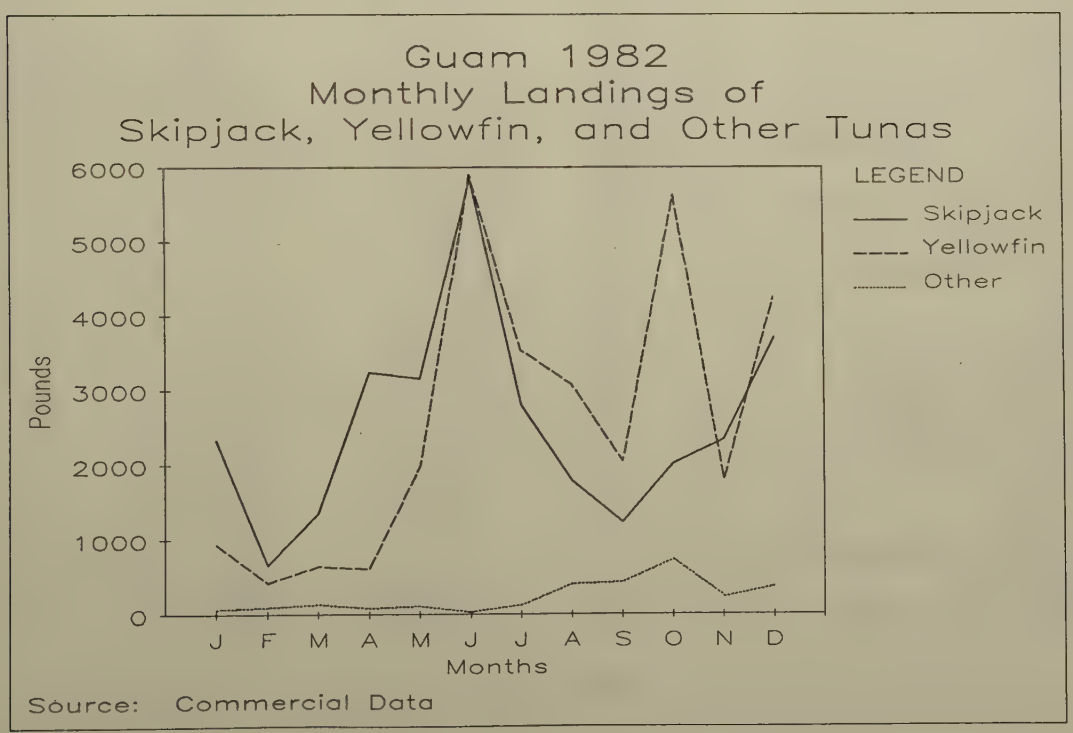


Table 5.1

GUAM 1983 ANNUAL COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	6	54.27	66.29	1.22
BIGEYE SCAD (ATULAI)	172	9193.44	19483.50	2.12
JACKS	68	1215.77	1677.82	1.38
SHARKS	44	1848.46	928.50	0.50
MILKFISH	1	1765.00	3177.00	1.80
BOTTOM FISH	365	17848.70	34511.41	1.93
EHU (RED SNAPPER)	7	90.23	212.29	2.35
GINDAI (FLOWER SNAP)	24	1333.83	2667.14	2.00
GROUPER	35	6733.04	8869.27	1.32
KALIKALI (PINK SNAP)	1	42.21	84.42	2.00
LEHI (SILVERJAW)	20	1619.99	2750.11	1.70
ONAGA (RED SNAPPER)	21	1478.51	3564.55	2.41
OPAKAPAKA (PINK SNP)	35	987.88	2300.66	2.33
UKU (GRAY SNAPPER)	4	76.81	115.21	1.50
REEF FISH	289	5456.97	10661.23	1.95
GIANT WRASSE	7	157.13	314.26	2.00
RABBITFISH (HITTING)	1	10.60	21.20	2.00
RABBITFISH (SESJUN)	5	23.28	41.06	1.76
EMPEROR (MAFUTE)	60	1593.38	3071.86	1.93
SQUIRRELFISH	1	25.00	50.00	2.00
PARROTFISH	7	327.00	454.79	1.39
SNAPPER	16	265.43	487.11	1.84
SURGEONFISH	4	26.72	46.37	1.74
UNICORNFISH	6	187.57	249.16	1.33
GOATFISH	3	19.68	39.36	2.00
TROLL FISH	10	586.86	722.81	1.23
BARRACUDA	184	2768.89	3421.20	1.24
DOLPHIN (MAHIMAHI)	1351	98639.40	137442.11	1.39
MARLIN	145	20889.00	23899.91	1.14
SPEARFISH	1	38.00	38.00	1.00
SAILFISH	23	1426.00	1744.27	1.22
RAINBOW RUNNER	88	1298.86	1905.36	1.47
WAHOO	817	49667.50	72482.42	1.46
TUNAS	65	2701.31	2458.49	0.91
SKIPJACK TUNA	676	30192.61	26774.41	0.89
DOGTOOTH TUNA	92	4055.07	4845.60	1.19
YELLOWFIN TUNA	831	42494.08	65544.38	1.54
INVERTEBRATES	4	100.30	172.87	1.72
LOBSTER	18	240.20	742.35	3.09
OCTOPUS	58	454.43	680.63	1.50
SHRIMP (FRESHWATER)	2	89.00	534.00	6.00
IMPORTED	17	2639.20	4118.72	1.56
WHOLE (IMPORTED)	1	367.50	551.25	1.50
** TOTAL **	5585	311029.11	443923.35	

Table 5.2

GUAM JANUARY 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	1	1.00	2.00	2.00
BIGEYE SCAD (ATULAI)	2	64.00	134.40	2.10
JACKS	5	87.49	174.98	2.00
SHARKS	4	273.50	136.75	0.50
BOTTOM FISH	25	575.37	1150.74	2.00
GINDAI (FLOWER SNAP)	2	91.00	182.00	2.00
GROUPER	12	214.49	429.06	2.00
LEHI (SILVERJAW)	1	29.50	59.00	2.00
ONAGA (RED SNAPPER)	4	195.00	390.00	2.00
OPAKAPAKA (PINK SNP)	2	105.00	210.00	2.00
REEF FISH	22	403.83	807.62	2.00
GIANT WRASSE	1	2.25	4.50	2.00
RABBITFISH (SESJUN)	2	7.11	14.22	2.00
EMPEROR (MAFUTE)	9	109.80	219.60	2.00
SNAPPER	2	21.50	43.00	2.00
UNICORNFISH	1	6.95	13.90	2.00
GOATFISH	2	18.30	36.60	2.00
BARRACUDA	26	510.95	704.83	1.38
DOLPHIN (MAHIMAHI)	115	8212.61	12318.91	1.50
MARLIN	1	95.00	118.75	1.25
SAILFISH	1	8.00	12.00	1.50
RAINBOW RUNNER	7	84.50	126.75	1.50
WAHOO	37	3110.37	4114.78	1.32
TUNAS	6	53.64	53.64	1.00
SKIPJACK TUNA	34	744.47	744.47	1.00
DOGTOOTH TUNA	10	223.50	328.87	1.47
YELLOWFIN TUNA	60	3287.55	4952.83	1.51
LOBSTER	1	2.30	8.63	3.75
** SUBTOTAL **	395	18538.98	27492.83	

Table 5.3

GUAM FEBRUARY 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	1	1.77	3.54	2.00
BIGEYE SCAD (ATULAI)	3	46.00	96.60	2.10
JACKS	4	46.50	93.00	2.00
SHARKS	4	257.00	128.50	0.50
BOTTOM FISH	16	651.25	1302.50	2.00
GINDAI (FLOWER SNAP)	1	2.10	3.68	1.75
GROUPER	3	187.00	335.25	1.79
ONAGA (RED SNAPPER)	2	68.41	136.80	2.00
OPAKAPAKA (PINK SNP)	3	42.81	84.67	1.98
REEF FISH	10	188.49	369.22	1.96
GIANT WRASSE	1	20.00	40.00	2.00
EMPEROR (MAFUTE)	2	13.30	26.60	2.00
SNAPPER	1	17.00	34.00	2.00
TROLL FISH	4	330.00	433.25	1.31
BARRACUDA	12	70.71	93.73	1.33
DOLPHIN (MAHIMAHI)	189	13518.81	19299.38	1.43
MARLIN	3	654.00	688.50	1.05
RAINBOW RUNNER	6	68.30	102.45	1.50
WAHOO	55	3585.00	5343.75	1.49
TUNAS	1	30.00	30.00	1.00
SKIPJACK TUNA	81	2658.68	2520.43	0.95
DOGTOOTH TUNA	8	165.00	227.50	1.38
YELLOWFIN TUNA	41	1328.39	2045.99	1.54
INVERTEBRATES	1	3.30	9.87	2.99
OCTOPUS	1	5.67	10.00	1.76
** SUBTOTAL **	453	23959.49	33459.21	

Table 5.4

GUAM MARCH 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	1	63.00	132.30	2.10
SHARKS	5	206.50	107.50	0.52
BOTTOM FISH	44	1056.20	2104.90	1.99
REEF FISH	5	125.41	243.07	1.94
RABBITFISH (SESJUN)	1	1.17	2.34	2.00
EMPEROR (MAFUTE)	2	74.50	149.00	2.00
BARRACUDA	20	551.99	641.78	1.16
DOLPHIN (MAHIMAHI)	432	22522.28	32231.94	1.43
MARLIN	1	57.00	85.50	1.50
SAILFISH	5	308.00	385.00	1.25
RAINBOW RUNNER	1	5.85	8.78	1.50
WAHOO	126	7207.20	10769.80	1.49
TUNAS	29	1172.20	1001.66	0.85
SKIPJACK TUNA	108	4149.19	3623.76	0.87
DOGTOOTH TUNA	8	166.90	244.85	1.47
YELLOWFIN TUNA	67	2166.28	3249.43	1.50
OCTOPUS	3	22.27	38.98	1.75
** SUBTOTAL **	858	39855.94	55020.59	

Table 5.5

GUAM APRIL 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
JACKS	3	42.10	84.20	2.00
SHARKS	4	202.91	101.46	0.50
BOTTOM FISH	31	1758.08	3211.49	1.83
GROUPER	1	66.00	99.00	1.50
LEHI (SILVERJAW)	1	132.00	132.00	1.00
REEF FISH	13	195.99	391.98	2.00
EMPEROR (MAFUTE)	1	0.75	1.50	2.00
BARRACUDA	16	263.13	331.00	1.26
DOLPHIN (MAHIMAHI)	246	23135.83	31594.30	1.37
MARLIN	6	630.50	790.53	1.25
SAILFISH	5	361.00	432.50	1.20
RAINBOW RUNNER	4	35.63	53.45	1.50
WAHOO	109	6912.49	9663.36	1.40
TUNAS	3	98.30	76.19	0.78
SKIPJACK TUNA	83	3758.98	2851.54	0.76
DOGTOOTH TUNA	7	302.33	385.99	1.28
YELLOWFIN TUNA	60	3005.83	4535.65	1.51
OCTOPUS	2	11.45	18.85	1.65
IMPORTED	1	104.00	182.00	1.75
WHOLE (IMPORTED)	1	367.50	551.25	1.50
** SUBTOTAL **	597	41384.80	55488.24	

Table 5.6

GUAM MAY 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	1	3.50	7.00	2.00
BIGEYE SCAD (ATULAI)	3	76.20	160.02	2.10
JACKS	1	16.00	32.00	2.00
SHARKS	4	164.50	82.25	0.50
BOTTOM FISH	36	5113.04	10226.08	2.00
GINDAI (FLOWER SNAP)	1	3.00	6.00	2.00
GROUPER	2	807.50	885.00	1.10
OPAKAPAKA (PINK SNP)	1	14.00	28.00	2.00
REEF FISH	32	653.08	1281.16	1.96
GIANT WRASSE	1	57.50	115.00	2.00
EMPEROR (MAFUTE)	1	6.00	12.00	2.00
SNAPPER	1	20.00	40.00	2.00
BARRACUDA	12	176.29	220.38	1.25
DOLPHIN (MAHIMAHI)	161	20915.65	27290.72	1.30
MARLIN	7	799.50	902.38	1.13
SAILFISH	2	109.00	136.25	1.25
RAINBOW RUNNER	10	120.44	179.09	1.49
WAHOO	72	2965.50	4436.62	1.50
TUNAS	3	76.42	65.59	0.86
SKIPJACK TUNA	76	2940.45	2605.28	0.89
DOGTOOTH TUNA	8	310.30	385.25	1.24
YELLOWFIN TUNA	53	2372.40	3576.61	1.51
LOBSTER	8	131.51	433.48	3.30
OCTOPUS	3	10.35	15.81	1.53
IMPORTED	16	2535.20	3936.72	1.55
** SUBTOTAL **	515	40397.33	57058.69	

Table 5.7

GUAM JUNE 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	1	13.00	13.00	1.00
BIGEYE SCAD (ATULAI)	5	206.50	433.65	2.10
JACKS	3	188.77	264.16	1.40
SHARKS	6	229.50	114.76	0.50
BOTTOM FISH	38	3297.86	6602.33	2.00
GINDAI (FLOWER SNAP)	1	2.28	4.56	2.00
GROUPER	6	1610.00	2109.12	1.31
LEHI (SILVERJAW)	1	18.00	31.50	1.75
OPAKAPAKA (PINK SNP)	1	17.50	35.00	2.00
REEF FISH	39	715.57	1392.02	1.95
EMPEROR (MAFUTE)	4	162.00	299.00	1.85
PARROTFISH	2	150.00	225.00	1.50
SNAPPER	2	88.00	139.25	1.58
UNICORNFISH	4	177.89	229.80	1.29
BARRACUDA	17	295.20	350.51	1.19
DOLPHIN (MAHIMAHI)	87	6307.32	8716.21	1.38
MARLIN	12	1610.50	1869.45	1.16
RAINBOW RUNNER	15	258.50	369.50	1.43
WAHOO	33	1464.75	2197.13	1.50
TUNAS	1	6.00	5.10	0.85
SKIPJACK TUNA	54	2877.13	2489.53	0.87
DOGTOOTH TUNA	9	827.00	1034.66	1.25
YELLOWFIN TUNA	57	2407.73	3577.65	1.49
LOBSTER	1	5.55	15.26	2.75
OCTOPUS	4	59.87	53.81	0.90
** SUBTOTAL **	403	22996.42	32571.96	

Table 5.8

GUAM JULY 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	1	23.00	28.75	1.25
BIGEYE SCAD (ATULAI)	17	491.94	1142.85	2.32
JACKS	9	153.40	177.90	1.16
SHARKS	4	112.00	56.00	0.50
BOTTOM FISH	27	559.39	1101.75	1.97
EHU (RED SNAPPER)	2	26.83	58.66	2.19
GINDAI (FLOWER SNAP)	3	224.00	448.00	2.00
GROUPER	3	761.00	936.62	1.23
KALIKALI (PINK SNAP)	1	42.21	84.42	2.00
LEHI (SILVERJAW)	5	755.40	1321.95	1.75
ONAGA (RED SNAPPER)	6	257.80	644.50	2.50
OPAKAPAKA (PINK SNP)	11	178.76	397.30	2.22
UKU (GRAY SNAPPER)	1	16.50	24.75	1.50
REEF FISH	45	849.78	1699.74	2.00
EMPEROR (MAFUTE)	8	104.91	209.82	2.00
SQUIRRELFISH	1	25.00	50.00	2.00
PARROTFISH	1	8.50	17.00	2.00
SNAPPER	5	49.87	99.74	2.00
SURGEONFISH	3	17.22	27.37	1.59
BARRACUDA	17	150.05	171.17	1.14
DOLPHIN (MAHIMAHI)	33	1669.95	2502.75	1.50
MARLIN	24	3695.00	4227.56	1.14
SAILFISH	1	60.50	75.63	1.25
RAINBOW RUNNER	16	221.05	331.58	1.50
WAHOO	37	1713.76	2579.77	1.51
TUNAS	3	113.40	117.25	1.03
SKIPJACK TUNA	68	3492.88	3153.23	0.90
DOGTOOTH TUNA	12	413.55	477.89	1.16
YELLOWFIN TUNA	117	6457.46	10004.27	1.55
LOBSTER	1	3.12	10.92	3.50
OCTOPUS	8	49.86	74.78	1.50
** SUBTOTAL **	490	22698.09	32253.92	

Table 5.9

GUAM AUGUST 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	1	12.00	12.00	1.00
BIGEYE SCAD (ATULAI)	38	1385.82	2920.13	2.11
JACKS	11	182.98	224.13	1.22
SHARKS	3	139.00	69.50	0.50
BOTTOM FISH	42	1207.53	2162.29	1.79
GINDAI (FLOWER SNAP)	5	327.00	654.00	2.00
GROUPER	4	1591.50	2205.00	1.39
LEHI (SILVERJAW)	4	222.00	388.51	1.75
ONAGA (RED SNAPPER)	4	95.20	238.00	2.50
OPAKAPAKA (PINK SNP)	5	158.20	366.67	2.32
REEF FISH	37	770.70	1541.40	2.00
GIANT WRASSE	2	48.65	97.30	2.00
EMPEROR (MAFUTE)	8	202.67	333.34	1.64
PARROTFISH	1	111.00	111.00	1.00
SNAPPER	3	23.10	42.43	1.84
SURGEONFISH	1	9.50	19.00	2.00
BARRACUDA	13	140.31	160.36	1.14
DOLPHIN (MAHIMAHI)	18	742.76	1114.13	1.50
MARLIN	30	5714.50	6526.28	1.14
SAILFISH	2	146.00	182.51	1.25
RAINBOW RUNNER	8	136.47	204.70	1.50
WAHOO	53	3437.72	5154.50	1.50
SKIPJACK TUNA	55	2219.65	2065.47	0.93
DOGTOOTH TUNA	4	90.83	98.15	1.08
YELLOWFIN TUNA	114	6875.17	10610.88	1.54
INVERTEBRATES	2	70.00	122.50	1.75
LOBSTER	2	24.68	70.69	2.86
OCTOPUS	9	53.14	79.74	1.50
** SUBTOTAL **	479	26138.08	37774.61	

Table 5.10

GUAM SEPTEMBER 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	31	2432.37	5367.85	2.21
JACKS	10	135.95	143.45	1.06
SHARKS	4	93.00	46.50	0.50
BOTTOM FISH	30	865.03	1588.06	1.84
GINDAI (FLOWER SNAP)	4	249.02	498.04	2.00
GROUPER	2	169.50	211.87	1.25
LEHI (SILVERJAW)	3	85.09	148.90	1.75
ONAGA (RED SNAPPER)	1	116.00	290.00	2.50
OPAKAPAKA (PINK SNP)	4	106.39	265.98	2.50
REEF FISH	13	207.96	408.95	1.97
RABBITFISH (HITTING)	1	10.60	21.20	2.00
EMPEROR (MAFUTE)	3	95.50	191.00	2.00
TROLL FISH	1	10.86	10.86	1.00
BARRACUDA	8	58.79	67.94	1.16
DOLPHIN (MAHIMAHI)	9	147.67	221.65	1.50
MARLIN	28	3601.50	4236.59	1.18
SAILFISH	1	63.00	78.75	1.25
RAINBOW RUNNER	5	87.96	131.94	1.50
WAHOO	54	4071.81	6116.59	1.50
TUNAS	7	395.01	352.72	0.89
SKIPJACK TUNA	39	3120.89	2699.09	0.86
DOGTOOTH TUNA	9	820.00	791.75	0.97
YELLOWFIN TUNA	71	4912.06	7834.71	1.59
LOBSTER	4	58.53	159.84	2.73
OCTOPUS	5	51.39	79.31	1.54
** SUBTOTAL **	347	21965.88	31963.54	

Table 5.11

GUAM OCTOBER 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	40	1956.37	3950.71	2.02
JACKS	10	179.94	257.30	1.43
SHARKS	1	32.00	16.00	0.50
BOTTOM FISH	40	1457.07	2382.78	1.64
EHU (RED SNAPPER)	2	47.23	118.08	2.50
GINDAI (FLOWER SNAP)	6	427.93	855.86	2.00
GROUPER	2	1326.05	1658.35	1.25
LEHI (SILVERJAW)	4	349.00	617.50	1.77
ONAGA (RED SNAPPER)	4	746.10	1865.25	2.50
OPAKAPAKA (PINK SNP)	6	301.45	753.62	2.50
REEF FISH	23	307.60	615.24	2.00
GIANT WRASSE	1	13.45	26.90	2.00
RABBITFISH (SESJUN)	1	4.00	8.00	2.00
EMPEROR (MAFUTE)	6	260.39	520.78	2.00
PARROTFISH	1	29.00	58.00	2.00
SNAPPER	2	45.96	88.69	1.93
BARRACUDA	19	201.47	249.20	1.24
DOLPHIN (MAHIMAHI)	6	97.54	146.30	1.50
MARLIN	17	1971.50	2223.62	1.13
RAINBOW RUNNER	3	46.71	70.06	1.50
WAHOO	41	3047.80	4565.35	1.50
TUNAS	2	155.59	155.59	1.00
SKIPJACK TUNA	21	895.48	906.05	1.01
DOGTOOTH TUNA	9	605.57	678.98	1.12
YELLOWFIN TUNA	73	4425.58	7333.59	1.66
INVERTEBRATES	1	27.00	40.50	1.50
LOBSTER	1	14.51	43.53	3.00
OCTOPUS	7	38.22	57.32	1.50
** SUBTOTAL **	349	19010.51	30263.15	

Table 5.12

GUAM NOVEMBER 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	30	2018.74	4313.74	2.14
JACKS	7	121.99	140.79	1.15
SHARKS	4	111.55	55.78	0.50
BOTTOM FISH	15	473.81	924.39	1.95
LEHI (SILVERJAW)	1	29.00	50.75	1.75
OPAKAPAKA (PINK SNP)	1	59.00	147.50	2.50
REEF FISH	20	418.74	699.83	1.67
RABBITFISH (SESJUN)	1	11.00	16.50	1.50
EMPEROR (MAFUTE)	7	318.47	628.94	1.97
PARROTFISH	2	28.50	43.79	1.54
UNICORNFISH	1	2.73	5.46	2.00
GOATFISH	1	1.38	2.76	2.00
BARRACUDA	16	186.60	224.38	1.20
DOLPHIN (MAHIMAHI)	25	637.49	913.21	1.43
MARLIN	6	634.00	712.75	1.12
SPEARFISH	1	38.00	38.00	1.00
SAILFISH	5	302.50	356.63	1.18
RAINBOW RUNNER	9	114.05	171.06	1.50
WAHOO	98	6240.88	9059.06	1.45
TUNAS	8	465.35	465.35	1.00
SKIPJACK TUNA	33	2184.42	1965.17	0.90
DOGTOOTH TUNA	4	46.28	68.19	1.47
YELLOWFIN TUNA	63	2881.04	4404.57	1.53
OCTOPUS	5	42.16	63.91	1.52
** SUBTOTAL **	363	17367.68	25472.51	

Table 5.13

GUAM DECEMBER 1983 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	2	452.50	831.25	1.84
JACKS	5	60.65	85.91	1.42
SHARKS	1	27.00	13.50	0.50
MILKFISH	1	1765.00	3177.00	1.80
BOTTOM FISH	21	834.07	1754.10	2.10
EHU (RED SNAPPER)	3	16.17	35.55	2.20
GINDAI (FLOWER SNAP)	1	7.50	15.00	2.00
OPAKAPAKA (PINK SNP)	1	4.77	11.92	2.50
UKU (GRAY SNAPPER)	3	60.31	90.46	1.50
REEF FISH	30	619.82	1211.00	1.95
GIANT WRASSE	1	15.28	30.56	2.00
EMPEROR (MAFUTE)	9	245.09	480.28	1.96
TROLL FISH	5	246.00	278.70	1.13
BARRACUDA	8	163.40	205.92	1.26
DOLPHIN (MAHIMAHI)	30	731.49	1092.61	1.49
MARLIN	10	1426.00	1518.00	1.06
SAILFISH	1	68.00	85.00	1.25
RAINBOW RUNNER	4	119.40	156.00	1.31
WAHOO	102	5910.22	8481.71	1.44
TUNAS	2	135.40	135.40	1.00
SKIPJACK TUNA	24	1150.39	1150.39	1.00
DOGTOOTH TUNA	4	83.81	123.52	1.47
YELLOWFIN TUNA	55	2374.59	3418.20	1.44
OCTOPUS	11	110.05	188.12	1.71
SHRIMP (FRESHWATER)	2	89.00	534.00	6.00
** SUBTOTAL **	336	16715.91	25104.10	
** 1983 TOTAL **	5585	311029.11	443923.35	

Figure 5.1

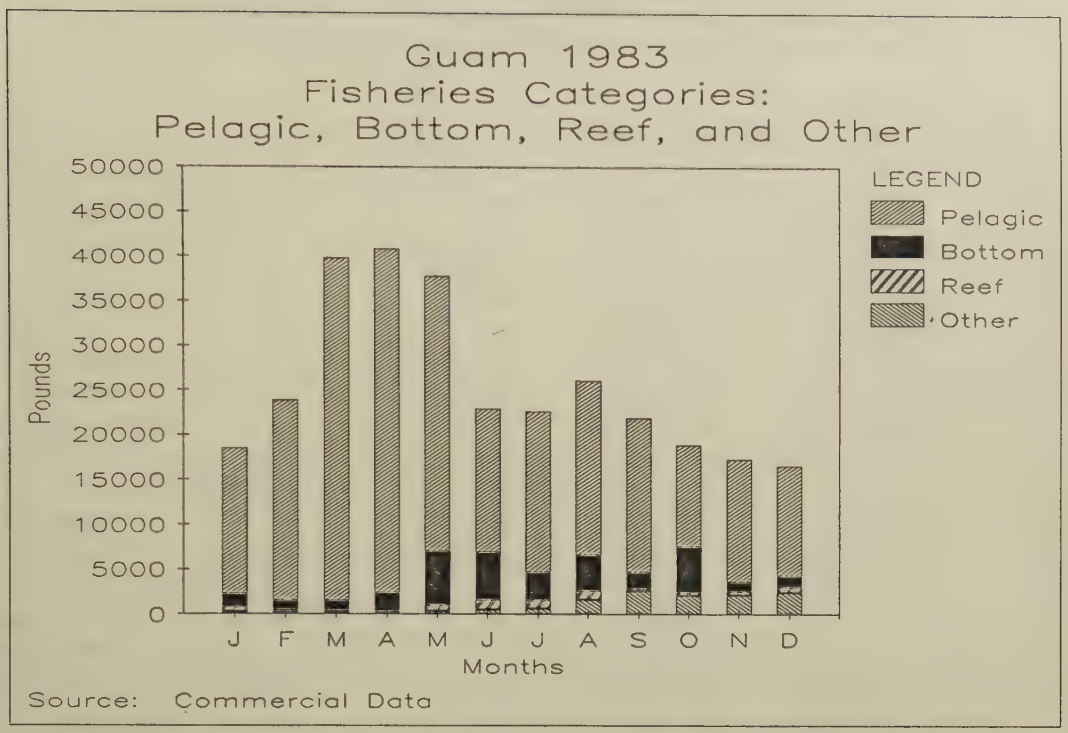


Figure 5.2

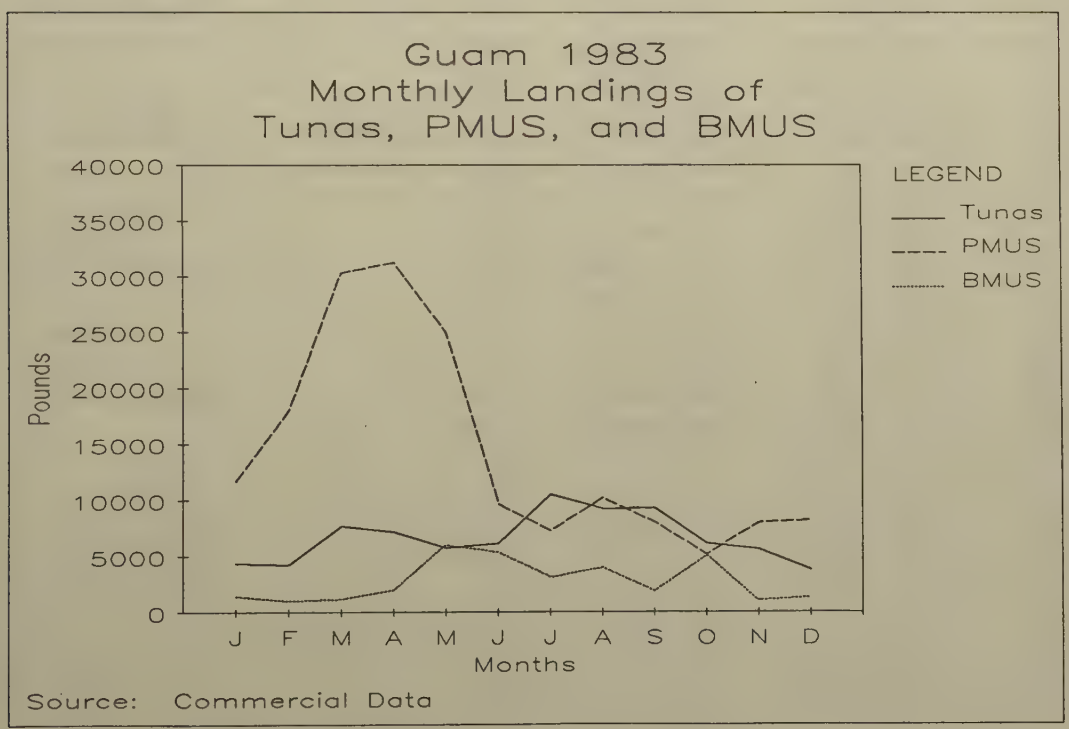


Figure 5.3

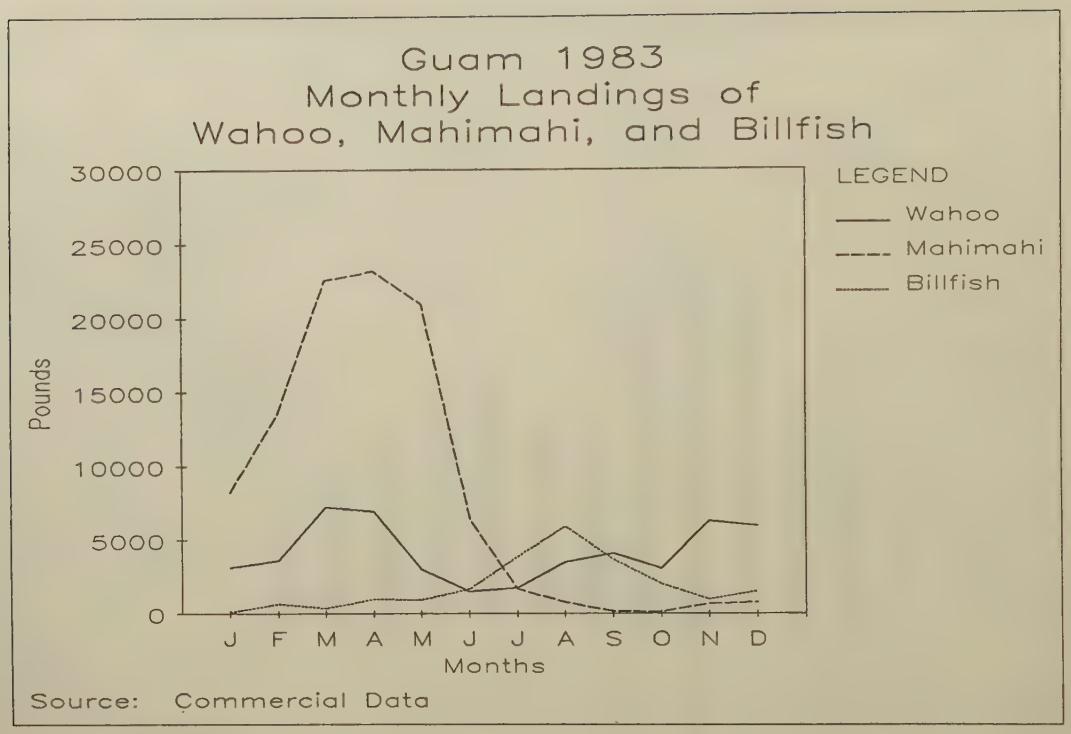


Figure 5.4

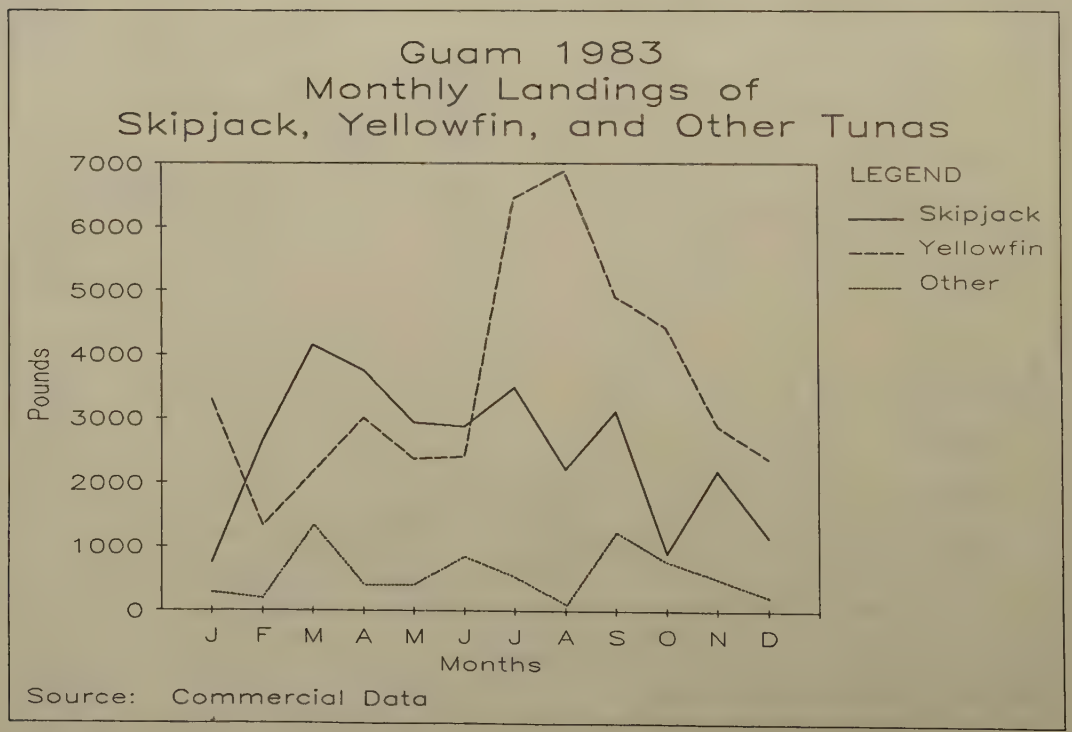


Table 6.1

GUAM 1984 ANNUAL COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	30	783.41	1258.89	1.61
BIGEYE SCAD (ATULAI)	331	24796.18	42339.42	1.71
JACKS	138	2581.76	4541.79	1.76
MULLET	4	51.00	91.80	1.80
SHARKS	16	521.24	305.74	0.59
EEL (FRESHWATER)	2	152.00	228.00	1.50
MILKFISH	32	15137.75	27272.40	1.80
BOTTOM FISH	159	5681.28	11051.47	1.95
EHU (RED SNAPPER)	13	146.10	336.55	2.30
GINDAI (FLOWER SNAP)	25	344.10	700.09	2.03
GROUPER	50	1211.74	1919.65	1.58
KALIKALI (PINK SNAP)	24	715.67	1415.90	1.98
LEHI (SILVERJAW)	26	946.31	1905.23	2.01
ONAGA (RED SNAPPER)	9	186.25	483.00	2.59
OPAKAPAKA (PINK SNP)	26	761.75	1655.07	2.17
UKU (GRAY SNAPPER)	76	1697.82	3265.06	1.92
REEF FISH	617	17515.99	34022.55	1.94
GIANT WRASSE	1	73.00	131.40	1.80
RABBITFISH (HITTING)	3	31.00	61.60	1.99
RABBITFISH (MENAHAC)	3	60.25	109.12	1.81
RABBITFISH (SESJUN)	6	28.75	56.22	1.96
RUDDERFISH (GUILLI)	6	48.25	86.85	1.80
EMPEROR (MAFUTE)	143	4909.71	9777.27	1.99
SQUIRRELFISH	10	79.72	159.44	2.00
PARROTFISH	52	1234.80	2322.19	1.88
SNAPPER	88	1779.46	2740.87	1.54
SURGEONFISH	13	132.14	238.76	1.81
UNICORNFISH	49	836.17	1546.63	1.85
GOATFISH	13	33.44	66.23	1.98
TROLL FISH	13	455.50	676.03	1.48
BARRACUDA	210	2778.00	3628.52	1.31
DOLPHIN (MAHIMAHI)	435	20336.51	31060.70	1.53
MARLIN	183	29884.75	30230.37	1.01
SPEARFISH	1	20.00	20.00	1.00
SAILFISH	9	426.50	567.12	1.33
RAINBOW RUNNER	63	584.39	852.30	1.46
WAHOO	709	40969.28	69521.60	1.70
TUNAS	1	40.75	71.31	1.75
SKIPJACK TUNA	750	57328.60	56470.48	0.99
DOGTOOTH TUNA	104	3438.35	4528.23	1.32
YELLOWFIN TUNA	735	39441.69	59908.59	1.52
INVERTEBRATES	4	17.50	42.88	2.45
CRABS	7	43.11	92.22	2.14
COCONUT CRAB	15	183.53	718.43	3.91
LOBSTER	112	992.44	2954.22	2.98

Table 6.1 (cont.)

GUAM 1984 ANNUAL COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
OCTOPUS	44	321.91	617.25	1.92
SHRIMP (SALTWATER)	2	14.48	94.81	6.55
SHRIMP (FRESHWATER)	26	1187.27	7546.26	6.36
IMPORTED	5	460.50	732.68	1.59
** TOTAL **	5393	281402.10	420423.19	

Table 6.2

GUAM JANUARY 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	1	155.50	311.00	2.00
JACKS	2	46.54	74.08	1.59
MILKFISH	1	910.00	1638.00	1.80
BOTTOM FISH	15	530.00	978.43	1.85
GROUPER	1	10.35	20.70	2.00
KALIKALI (PINK SNAP)	1	3.38	6.76	2.00
UKU (GRAY SNAPPER)	3	88.50	143.10	1.62
REEF FISH	28	856.79	1623.18	1.89
EMPEROR (MAFUTE)	6	143.38	272.66	1.90
PARROTFISH	1	10.20	20.40	2.00
SNAPPER	7	102.70	139.40	1.36
UNICORNFISH	4	62.00	82.75	1.33
GOATFISH	2	6.08	12.16	2.00
TROLL FISH	4	119.50	141.98	1.19
BARRACUDA	11	187.58	218.09	1.16
DOLPHIN (MAHIMAHI)	57	1389.49	1937.64	1.39
MARLIN	6	870.50	923.62	1.06
SPEARFISH	1	20.00	20.00	1.00
SAILFISH	1	20.00	25.00	1.25
RAINBOW RUNNER	4	34.60	51.90	1.50
WAHOO	61	4142.27	6102.68	1.47
SKIPJACK TUNA	56	4321.47	4280.47	0.99
DOGTOOTH TUNA	6	128.00	129.25	1.01
YELLOWFIN TUNA	54	2828.26	4051.27	1.43
LOBSTER	1	5.42	8.13	1.50
SHRIMP (FRESHWATER)	2	223.00	1338.00	6.00
** SUBTOTAL **	336	17215.51	24550.65	

Table 6.3

GUAM FEBUARY 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	1	1.14	2.28	2.00
BIGEYE SCAD (ATULAI)	1	13.45	33.62	2.50
JACKS	10	130.81	214.58	1.64
SHARKS	2	60.99	30.49	0.50
BOTTOM FISH	7	422.00	779.55	1.85
GINDAI (FLOWER SNAP)	2	51.56	103.12	2.00
GROUPER	6	59.16	118.31	2.00
KALIKALI (PINK SNAP)	2	144.19	288.38	2.00
LEHI (SILVERJAW)	3	113.48	226.96	2.00
OPAKAPAKA (PINK SNP)	3	105.23	233.96	2.22
UKU (GRAY SNAPPER)	3	33.54	61.60	1.84
REEF FISH	50	1690.49	3220.06	1.90
EMPEROR (MAFUTE)	9	135.62	271.24	2.00
SQUIRRELFISH	1	5.79	11.58	2.00
PARROTFISH	4	61.72	123.44	2.00
SNAPPER	6	59.24	118.48	2.00
SURGEONFISH	2	18.41	36.82	2.00
GOATFISH	4	7.00	14.00	2.00
TROLL FISH	3	165.00	233.00	1.41
BARRACUDA	9	68.03	93.59	1.38
DOLPHIN (MAHIMAHI)	82	4810.15	6804.69	1.41
MARLIN	2	270.00	312.25	1.16
RAINBOW RUNNER	6	71.57	107.35	1.50
WAHOO	45	3147.75	4736.10	1.50
SKIPJACK TUNA	53	3999.01	3965.31	0.99
DOGTOOTH TUNA	9	301.21	342.56	1.14
YELLOWFIN TUNA	64	3258.93	4729.62	1.45
INVERTEBRATES	1	4.25	6.38	1.50
OCTOPUS	1	1.32	1.98	1.50
** SUBTOTAL **	391	19211.04	27221.30	

Table 6.4

GUAM MARCH 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	4	78.50	137.37	1.75
BIGEYE SCAD (ATULAI)	3	62.19	138.57	2.23
JACKS	10	143.17	284.09	1.98
SHARKS	2	14.50	10.00	0.69
BOTTOM FISH	12	462.69	894.63	1.93
GINDAI (FLOWER SNAP)	3	17.41	34.82	2.00
GROUPER	5	46.05	92.10	2.00
KALIKALI (PINK SNAP)	3	50.10	100.20	2.00
LEHI (SILVERJAW)	1	61.18	122.36	2.00
OPAKAPAKA (PINK SNP)	4	72.42	181.05	2.50
UKU (GRAY SNAPPER)	12	351.49	690.84	1.97
REEF FISH	102	2775.71	5522.61	1.99
EMPEROR (MAFUTE)	14	441.02	882.04	2.00
SQUIRRELFISH	1	4.58	9.16	2.00
PARROTFISH	6	93.69	182.04	1.94
SNAPPER	12	149.90	226.30	1.51
SURGEONFISH	1	2.39	4.78	2.00
TROLL FISH	2	82.00	128.10	1.56
BARRACUDA	16	143.37	192.04	1.34
DOLPHIN (MAHIMAHI)	95	6506.67	9587.17	1.47
MARLIN	3	693.00	734.25	1.06
RAINBOW RUNNER	5	61.77	92.65	1.50
WAHOO	49	3089.87	4971.48	1.61
TUNAS	1	40.75	71.31	1.75
SKIPJACK TUNA	67	4167.92	4167.92	1.00
DOGTOOTH TUNA	7	215.45	247.68	1.15
YELLOWFIN TUNA	76	3411.77	4872.43	1.43
INVERTEBRATES	1	3.25	6.50	2.00
CRABS	2	11.25	22.50	2.00
LOBSTER	16	104.50	313.50	3.00
OCTOPUS	2	7.27	12.28	1.69
SHRIMP (FRESHWATER)	9	357.25	2300.12	6.44
IMPORTED	1	175.00	350.00	2.00
** SUBTOTAL **	547	23898.08	37582.89	

Table 6.5

GUAM APRIL 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	1	13.00	22.75	1.75
BIGEYE SCAD (ATULAI)	7	290.50	658.74	2.27
JACKS	10	210.97	440.69	2.09
SHARKS	2	82.75	41.38	0.50
BOTTOM FISH	16	419.69	839.38	2.00
GINDAI (FLOWER SNAP)	1	10.00	20.00	2.00
GROUPER	2	89.77	160.16	1.78
UKU (GRAY SNAPPER)	11	440.54	871.08	1.98
REEF FISH	136	3522.95	7027.61	1.99
EMPEROR (MAFUTE)	8	148.22	296.44	2.00
PARROTFISH	1	6.35	12.70	2.00
SNAPPER	8	489.00	613.87	1.26
UNICORNFISH	3	44.25	85.25	1.93
GOATFISH	1	1.11	2.22	2.00
TROLL FISH	1	39.00	68.25	1.75
BARRACUDA	19	324.01	429.25	1.32
DOLPHIN (MAHIMAHI)	71	3087.24	4868.05	1.58
MARLIN	17	2350.00	2711.80	1.15
SAILFISH	1	86.00	107.50	1.25
RAINBOW RUNNER	5	57.45	65.67	1.14
WAHOO	44	2421.14	4036.93	1.67
SKIPJACK TUNA	85	7867.34	7828.03	1.00
DOGTOOTH TUNA	9	368.44	402.03	1.09
YELLOWFIN TUNA	72	3285.76	4739.94	1.44
INVERTEBRATES	1	2.75	8.25	3.00
CRABS	3	16.86	33.72	2.00
LOBSTER	19	91.54	278.08	3.04
OCTOPUS	2	5.39	9.08	1.68
SHRIMP (FRESHWATER)	8	392.00	2548.00	6.50
** SUBTOTAL **	564	26164.02	39226.85	

Table 6.6

GUAM MAY 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	2	65.00	90.00	1.38
BIGEYE SCAD (ATULAI)	28	1268.72	2930.48	2.31
JACKS	18	527.81	873.37	1.65
SHARKS	4	154.75	104.25	0.67
EEL (FRESHWATER)	2	152.00	228.00	1.50
MILKFISH	3	2629.00	4732.20	1.80
BOTTOM FISH	29	785.00	1521.25	1.94
EHU (RED SNAPPER)	1	3.00	6.00	2.00
GINDAI (FLOWER SNAP)	1	7.17	14.34	2.00
GROUPER	4	223.37	393.61	1.76
KALIKALI (PINK SNAP)	2	60.84	121.68	2.00
LEHI (SILVERJAW)	2	112.50	225.00	2.00
ONAGA (RED SNAPPER)	2	41.75	83.50	2.00
OPAKAPAKA (PINK SNP)	2	169.17	351.43	2.08
UKU (GRAY SNAPPER)	10	207.75	389.00	1.87
REEF FISH	111	3297.70	6449.54	1.96
RABBITFISH (MENAHAC)	3	60.25	109.12	1.81
EMPEROR (MAFUTE)	7	296.92	591.19	1.99
SQUIRRELFISH	1	1.00	2.00	2.00
PARROTFISH	2	10.00	18.95	1.90
SNAPPER	7	225.50	285.88	1.27
UNICORNFISH	2	37.00	67.50	1.82
GOATFISH	1	0.75	1.50	2.00
BARRACUDA	21	435.75	567.93	1.30
DOLPHIN (MAHIMAHI)	18	844.71	1151.47	1.36
MARLIN	21	2857.00	3416.87	1.20
RAINBOW RUNNER	13	74.25	110.23	1.48
WAHOO	40	1667.50	2804.17	1.68
SKIPJACK TUNA	93	9176.48	8879.02	0.97
DOGTOOTH TUNA	14	552.75	796.13	1.44
YELLOWFIN TUNA	80	2871.66	4188.66	1.46
INVERTEBRATES	1	7.25	21.75	3.00
LOBSTER	33	295.42	886.32	3.00
OCTOPUS	2	5.57	9.36	1.68
SHRIMP (FRESHWATER)	3	94.50	614.25	6.50
** SUBTOTAL **	583	29219.79	43035.95	

Table 6.7

GUAM JUNE 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	2	3.52	7.04	2.00
BIGEYE SCAD (ATULAI)	25	1500.59	3403.04	2.27
JACKS	10	229.28	410.81	1.79
SHARKS	1	55.00	27.50	0.50
MILKFISH	5	1146.00	2062.80	1.80
BOTTOM FISH	21	721.38	1440.76	2.00
EHU (RED SNAPPER)	1	20.92	47.07	2.25
GINDAI (FLOWER SNAP)	4	57.34	126.57	2.21
GROUPER	7	272.95	354.28	1.30
KALIKALI (PINK SNAP)	3	97.25	194.50	2.00
LEHI (SILVERJAW)	2	50.50	109.37	2.17
ONAGA (RED SNAPPER)	1	10.00	30.00	3.00
OPAKAPAKA (PINK SNP)	3	118.25	196.62	1.66
UKU (GRAY SNAPPER)	9	198.75	381.13	1.92
REEF FISH	58	1584.09	2959.63	1.87
EMPEROR (MAFUTE)	11	300.58	601.16	2.00
SQUIRRELFISH	1	10.00	20.00	2.00
PARROTFISH	4	210.00	351.75	1.68
SNAPPER	10	80.31	146.74	1.83
TROLL FISH	1	22.00	44.00	2.00
BARRACUDA	14	204.59	266.53	1.30
DOLPHIN (MAHIMAHI)	3	90.75	173.74	1.91
MARLIN	20	3983.50	4213.11	1.06
SAILFISH	1	50.25	62.81	1.25
RAINBOW RUNNER	3	13.00	18.50	1.42
WAHOO	29	1401.50	2405.34	1.72
SKIPJACK TUNA	81	8049.68	7968.68	0.99
DOGTOOTH TUNA	12	630.50	809.99	1.28
YELLOWFIN TUNA	49	1876.68	2745.72	1.46
CRABS	2	15.00	36.00	2.40
LOBSTER	8	65.75	189.86	2.89
OCTOPUS	4	33.86	56.07	1.66
SHRIMP (FRESHWATER)	3	45.52	295.89	6.50
** SUBTOTAL **	408	23149.29	32157.01	

Table 6.8

GUAM JULY 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	5	121.50	207.50	1.71
BIGEYE SCAD (ATULAI)	53	3671.96	7537.25	2.05
JACKS	18	389.67	629.84	1.62
SHARKS	1	22.50	11.25	0.50
MILKFISH	5	1424.00	2563.20	1.80
BOTTOM FISH	22	1046.1	2091.00	2.00
EHU (RED SNAPPER)	6	86.59	203.43	2.35
GINDAI (FLOWER SNAP)	5	99.77	199.54	2.00
GROUPER	11	372.85	506.01	1.36
KALIKALI (PINK SNAP)	5	157.84	297.18	1.88
LEHI (SILVERJAW)	6	225.50	451.00	2.00
ONAGA (RED SNAPPER)	3	59.75	145.25	2.43
OPAKAPAKA (PINK SNP)	6	132.84	330.02	2.48
UKU (GRAY SNAPPER)	10	122.00	237.75	1.95
REEF FISH	36	1339.85	2567.30	1.92
RABBITFISH (HITTING)	1	27.00	54.00	2.00
EMPEROR (MAFUTE)	17	715.94	1431.88	2.00
SQUIRRELFISH	4	52.68	105.36	2.00
PARROTFISH	7	235.67	445.34	1.89
SNAPPER	17	383.30	679.30	1.77
SURGEONFISH	1	22.50	22.50	1.00
UNICORNFISH	6	142.51	285.02	2.00
BARRACUDA	16	195.17	247.20	1.27
MARLIN	34	5703.50	4796.46	0.84
RAINBOW RUNNER	9	60.50	90.75	1.50
WAHOO	36	1376.50	2419.35	1.76
SKIPJACK TUNA	62	4529.94	4413.91	0.97
DOGTOOTH TUNA	14	375.50	539.49	1.44
YELLOWFIN TUNA	52	1872.50	2892.57	1.54
COCONUT CRAB	1	4.28	16.05	3.75
LOBSTER	8	139.85	415.46	2.97
OCTOPUS	4	24.59	46.68	1.90
SHRIMP (SALTWATER)	1	12.50	81.25	6.50
** SUBTOTAL **	482	25147.24	36960.09	

Table 6.9

GUAM AUGUST 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	6	132.00	228.95	1.73
BIGEYE SCAD (ATULAI)	58	4448.50	9184.38	2.06
JACKS	13	158.31	278.31	1.76
MULLET	3	16.00	28.80	1.80
SHARKS	2	45.75	22.87	0.50
BOTTOM FISH	13	365.51	712.52	1.95
EHU (RED SNAPPER)	3	26.34	59.25	2.25
GINDAI (FLOWER SNAP)	7	78.60	157.20	2.00
GROUPER	4	21.34	42.68	2.00
KALIKALI (PINK SNAP)	4	137.42	274.84	2.00
LEHI (SILVERJAW)	7	235.00	473.62	2.02
ONAGA (RED SNAPPER)	1	44.00	132.00	3.00
OPAKAPAKA (PINK SNP)	4	89.59	202.86	2.26
UKU (GRAY SNAPPER)	2	20.50	41.00	2.00
REEF FISH	14	370.76	719.92	1.94
RABBITFISH (HITTING)	2	4.00	7.60	1.90
RABBITFISH (SESJUN)	1	3.50	6.48	1.85
EMPEROR (MAFUTE)	10	157.61	315.22	2.00
SQUIRRELFISH	1	4.67	9.34	2.00
PARROTFISH	6	160.50	318.20	1.98
SNAPPER	4	104.92	196.72	1.87
SURGEONFISH	2	26.17	51.94	1.98
UNICORNFISH	6	95.00	183.00	1.93
BARRACUDA	12	127.25	166.07	1.31
MARLIN	15	2543.00	2642.30	1.04
SAILFISH	1	45.00	56.25	1.25
RAINBOW RUNNER	3	21.50	32.25	1.50
WAHOO	29	1148.00	2109.90	1.84
SKIPJACK TUNA	65	5521.62	5196.48	0.94
DOGTOOTH TUNA	8	243.50	356.00	1.46
YELLOWFIN TUNA	68	4479.45	6909.55	1.54
COCONUT CRAB	9	145.25	565.88	3.90
LOBSTER	9	116.51	370.22	3.18
OCTOPUS	7	107.92	215.84	2.00
** SUBTOTAL **	399	21244.99	32268.44	

Table 6.10

GUAM SEPTEMBER 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	4	198.25	342.25	1.73
BIGEYE SCAD (ATULAI)	62	3877.62	7509.62	1.94
JACKS	16	243.50	441.97	1.82
MULLET	1	35.00	63.00	1.80
MILKFISH	2	809.00	1480.70	1.83
BOTTOM FISH	9	492.40	920.70	1.87
EHU (RED SNAPPER)	2	9.25	20.80	2.25
GINDAI (FLOWER SNAP)	2	22.25	44.50	2.00
GROUPER	7	90.40	180.80	2.00
KALIKALI (PINK SNAP)	4	64.65	132.36	2.05
LEHI (SILVERJAW)	5	148.15	296.92	2.00
ONAGA (RED SNAPPER)	2	30.75	92.25	3.00
OPAKAPAKA (PINK SNP)	2	23.75	50.75	2.14
UKU (GRAY SNAPPER)	6	110.00	208.62	1.90
REEF FISH	23	609.70	1121.20	1.84
RABBITFISH (SESJUN)	2	21.00	42.00	2.00
RUDDERFISH (GUILLI)	2	11.00	19.80	1.80
EMPEROR (MAFUTE)	27	1261.25	2512.00	1.99
PARROTFISH	14	333.25	627.03	1.88
SNAPPER	11	101.00	167.00	1.65
SURGEONFISH	5	60.92	119.54	1.96
UNICORNFISH	10	140.25	270.58	1.93
GOATFISH	2	2.50	4.50	1.80
BARRACUDA	22	247.25	307.10	1.24
DOLPHIN (MAHIMAHI)	3	124.00	118.28	0.95
MARLIN	29	4675.25	4443.38	0.95
SAILFISH	1	85.00	106.25	1.25
RAINBOW RUNNER	4	120.50	180.75	1.50
WAHOO	49	3692.75	6584.94	1.78
SKIPJACK TUNA	53	3590.25	3483.42	0.97
DOGTOOTH TUNA	8	221.25	305.80	1.38
YELLOWFIN TUNA	72	5687.60	8795.26	1.55
LOBSTER	15	156.25	434.33	2.78
OCTOPUS	8	67.67	138.59	2.05
** SUBTOTAL **	484	27363.61	41566.99	

Table 6.11

GUAM OCTOBER 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	3	82.50	131.75	1.60
BIGEYE SCAD (ATULAI)	30	1503.60	2177.60	1.45
JACKS	7	123.50	228.81	1.85
MILKFISH	4	1400.00	2520.00	1.80
BOTTOM FISH	5	72.17	144.75	2.01
GROUPER	1	7.00	14.00	2.00
UKU (GRAY SNAPPER)	4	54.50	96.44	1.77
REEF FISH	17	415.45	781.94	1.88
RABBITFISH (SESJUN)	3	4.25	7.74	1.82
RUDDERFISH (GUILLI)	4	37.25	67.05	1.80
EMPEROR (MAFUTE)	16	758.00	1501.10	1.98
PARROTFISH	6	86.25	168.00	1.95
SNAPPER	3	20.09	40.18	2.00
SURGEONFISH	2	1.75	3.18	1.82
UNICORNFISH	10	181.17	324.72	1.79
GOATFISH	1	0.75	1.35	1.80
BARRACUDA	12	156.25	214.37	1.37
DOLPHIN (MAHIMAHI)	1	9.50	16.63	1.75
MARLIN	13	3184.50	3020.20	0.95
SAILFISH	1	58.00	87.00	1.50
RAINBOW RUNNER	4	18.25	25.75	1.41
WAHOO	36	2173.75	3729.41	1.72
SKIPJACK TUNA	50	3308.25	3306.00	1.00
DOGTOOTH TUNA	4	120.50	180.75	1.50
YELLOWFIN TUNA	51	3176.00	4823.22	1.52
LOBSTER	2	7.50	24.37	3.25
OCTOPUS	8	43.06	81.00	1.88
** SUBTOTAL **	298	17003.79	23717.31	

Table 6.12

GUAM NOVEMBER 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
BIGEYE SCAD (ATULAI)	34	5034.50	5309.97	1.05
JACKS	15	159.20	273.92	1.72
SHARKS	2	85.00	58.00	0.68
MILKFISH	8	4152.50	7474.50	1.80
BOTTOM FISH	6	186.25	372.50	2.00
GROUPER	2	18.50	37.00	2.00
UKU (GRAY SNAPPER)	5	47.75	99.50	2.08
REEF FISH	17	436.91	815.27	1.87
GIANT WRASSE	1	73.00	131.40	1.80
EMPEROR (MAFUTE)	12	382.42	764.84	2.00
SQUIRRELFISH	1	1.00	2.00	2.00
SNAPPER	3	63.50	127.00	2.00
UNICORNFISH	5	97.50	180.38	1.85
GOATFISH	1	5.75	11.50	2.00
BARRACUDA	25	274.50	381.06	1.39
DOLPHIN (MAHIMAHI)	10	181.25	317.17	1.75
MARLIN	14	1693.75	1718.94	1.01
SAILFISH	2	78.00	117.00	1.50
RAINBOW RUNNER	5	32.25	48.37	1.50
WAHOO	98	7595.75	13279.61	1.75
SKIPJACK TUNA	34	1809.39	1775.61	0.98
DOGTOOTH TUNA	2	56.00	84.00	1.50
YELLOWFIN TUNA	50	4188.58	6656.02	1.59
LOBSTER	1	9.70	33.95	3.50
OCTOPUS	4	17.01	30.56	1.80
IMPORTED	1	52.00	78.00	1.50
** SUBTOTAL **	358	26731.96	40178.07	

Table 6.13

GUAM DECEMBER 1984 COMMERCIAL LANDINGS
FISH PURCHASES BY SPECIES

SPECIES	RECORDS	POUNDS	VALUE	AVE $/#
MISCELLANEOUS	2	88.00	89.00	1.01
BIGEYE SCAD (ATULAI)	29	2969.05	3145.15	1.06
JACKS	9	219.00	391.32	1.79
MILKFISH	4	2667.25	4801.00	1.80
BOTTOM FISH	4	178.00	356.00	2.00
OPAKAPAKA (PINK SNP)	2	50.50	108.38	2.15
UKU (GRAY SNAPPER)	1	22.50	45.00	2.00
REEF FISH	25	615.59	1214.29	1.97
EMPEROR (MAFUTE)	6	168.75	337.50	2.00
PARROTFISH	1	27.17	54.34	2.00
UNICORNFISH	3	36.49	67.43	1.85
GOATFISH	1	9.50	19.00	2.00
TROLL FISH	2	28.00	60.70	2.17
BARRACUDA	33	414.25	545.29	1.32
DOLPHIN (MAHIMAHI)	95	3292.75	6085.86	1.85
MARLIN	9	1060.75	1297.19	1.22
SAILFISH	1	4.25	5.31	1.25
RAINBOW RUNNER	2	18.75	28.13	1.50
WAHOO	193	9112.50	16341.69	1.79
SKIPJACK TUNA	51	987.25	1205.63	1.22
DOGTOOTH TUNA	11	225.25	334.55	1.49
YELLOWFIN TUNA	47	2504.50	4504.33	1.80
COCONUT CRAB	5	34.00	136.50	4.01
OCTOPUS	2	8.25	15.81	1.92
SHRIMP (SALTWATER)	1	1.98	13.56	6.85
SHRIMP (FRESHWATER)	1	75.00	450.00	6.00
IMPORTED	3	233.50	304.68	1.30
** SUBTOTAL **	543	25052.78	41957.64	
** 1984 TOTAL **	5393	281402.10	420423.19	

Figure 6.1

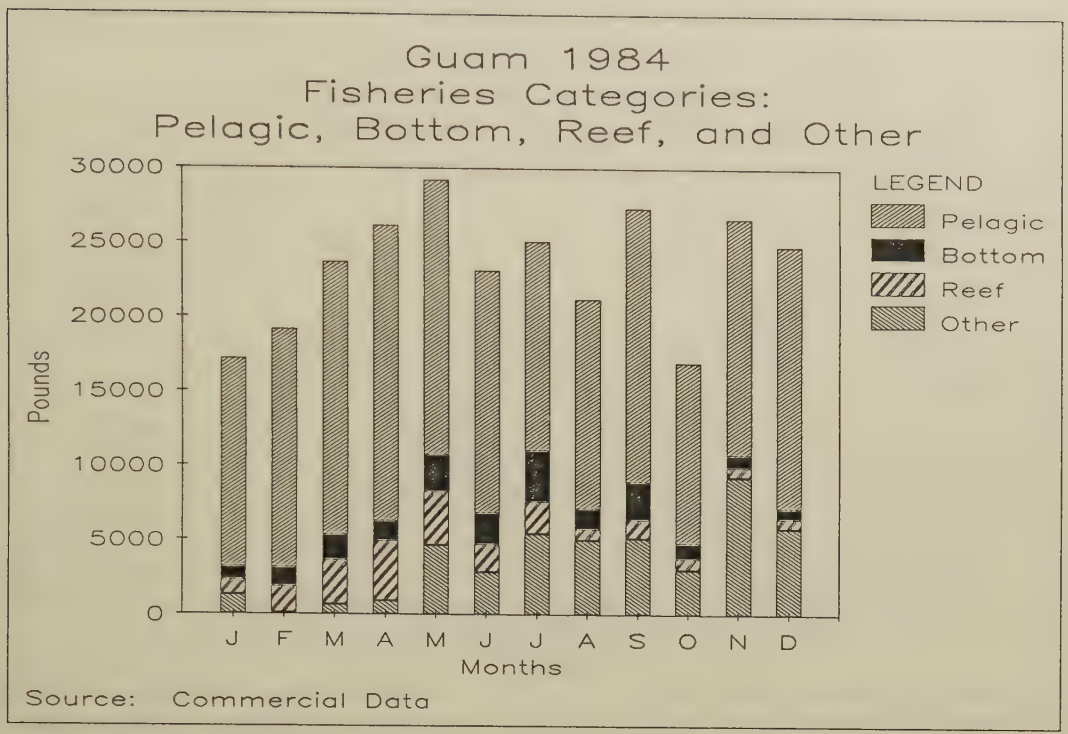


Figure 6.2

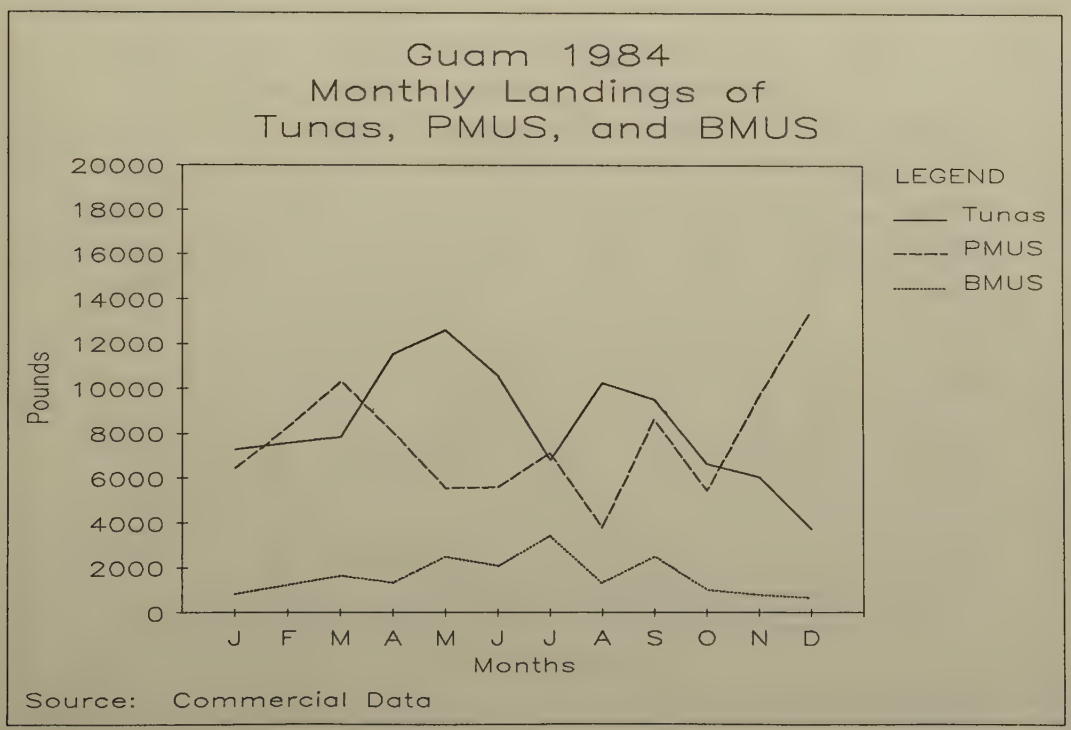


Figure 6.3

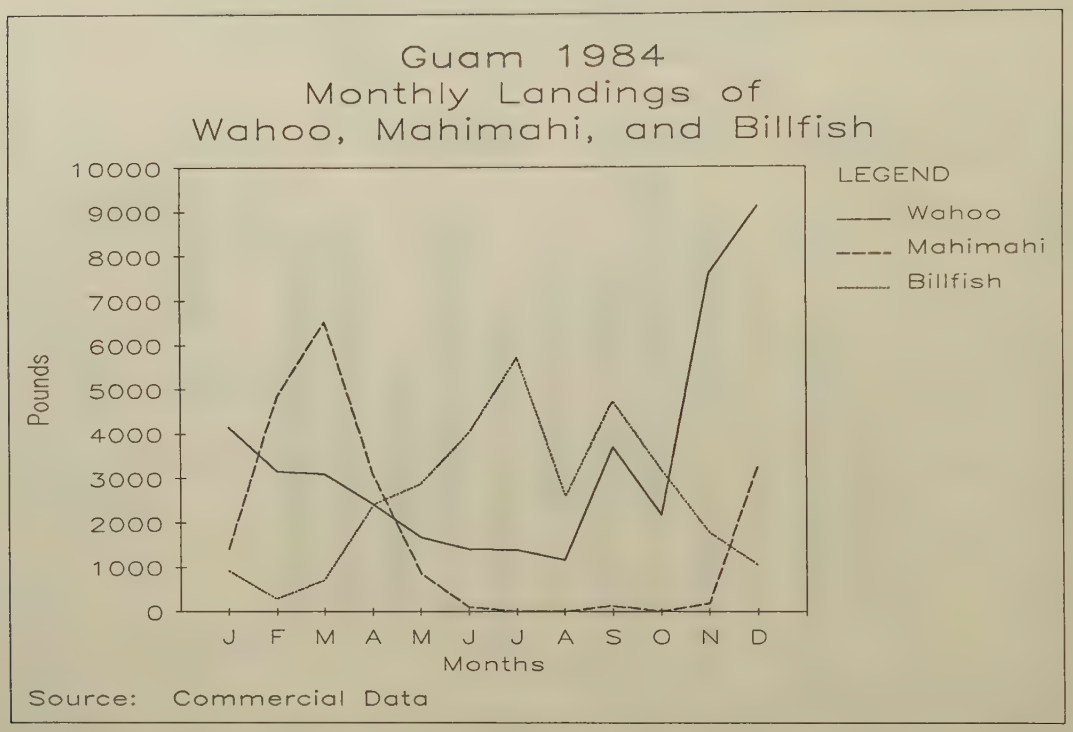


Figure 6.4

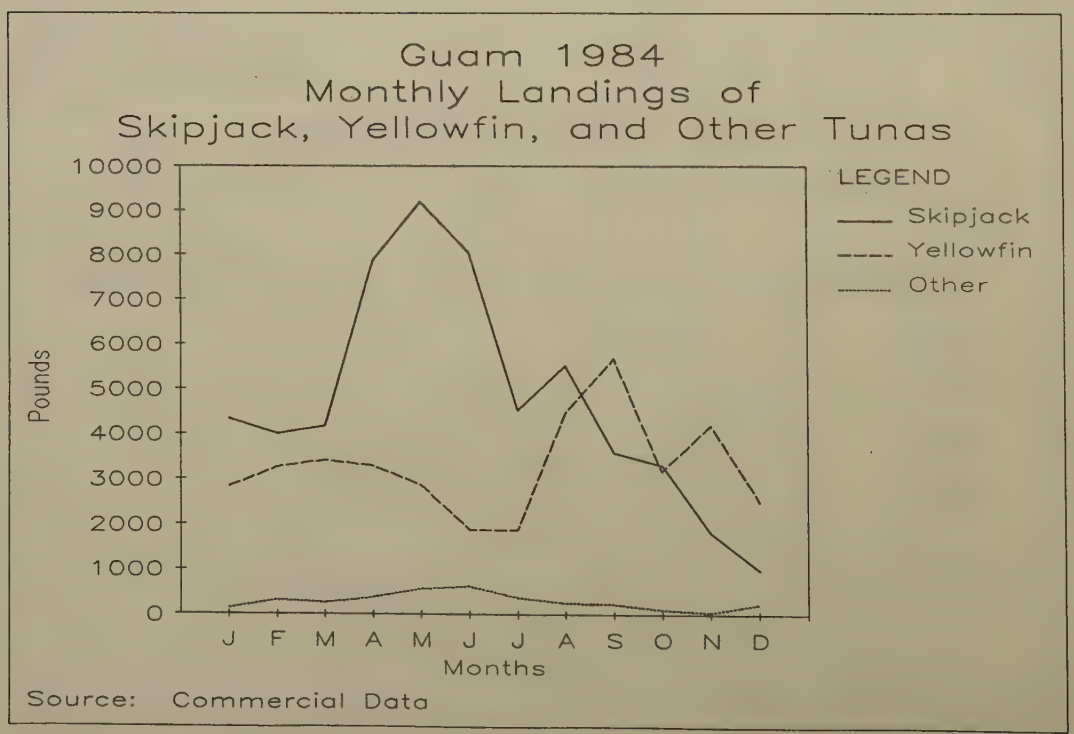


Figure 7.1

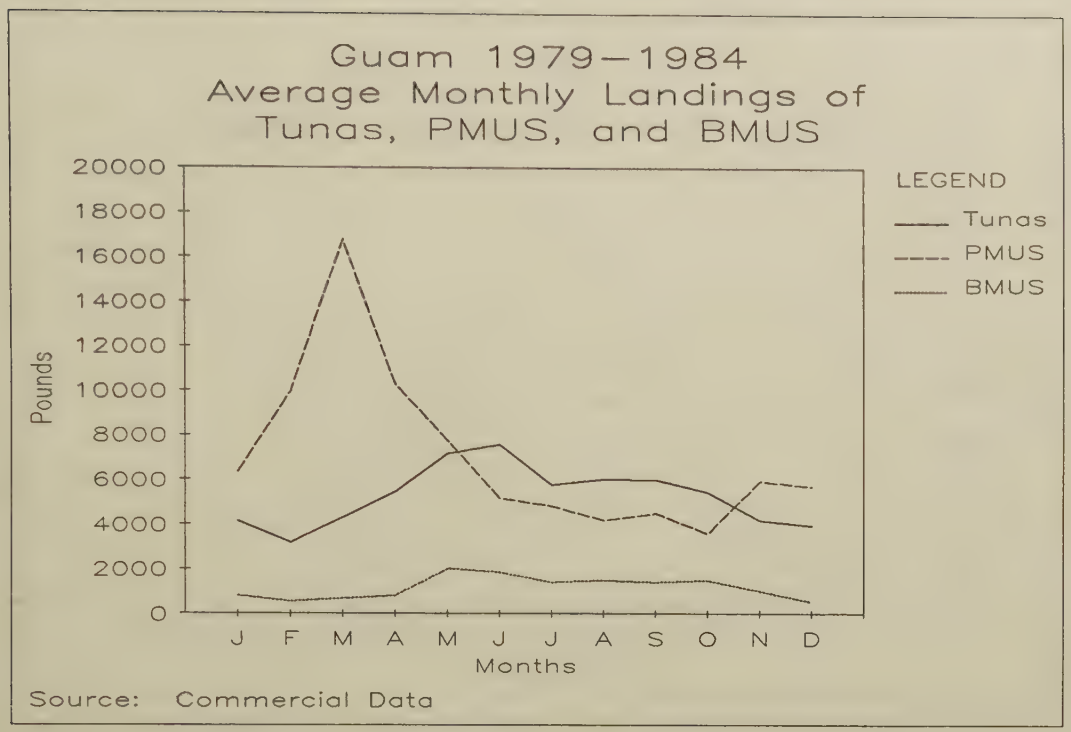


Figure 7.2

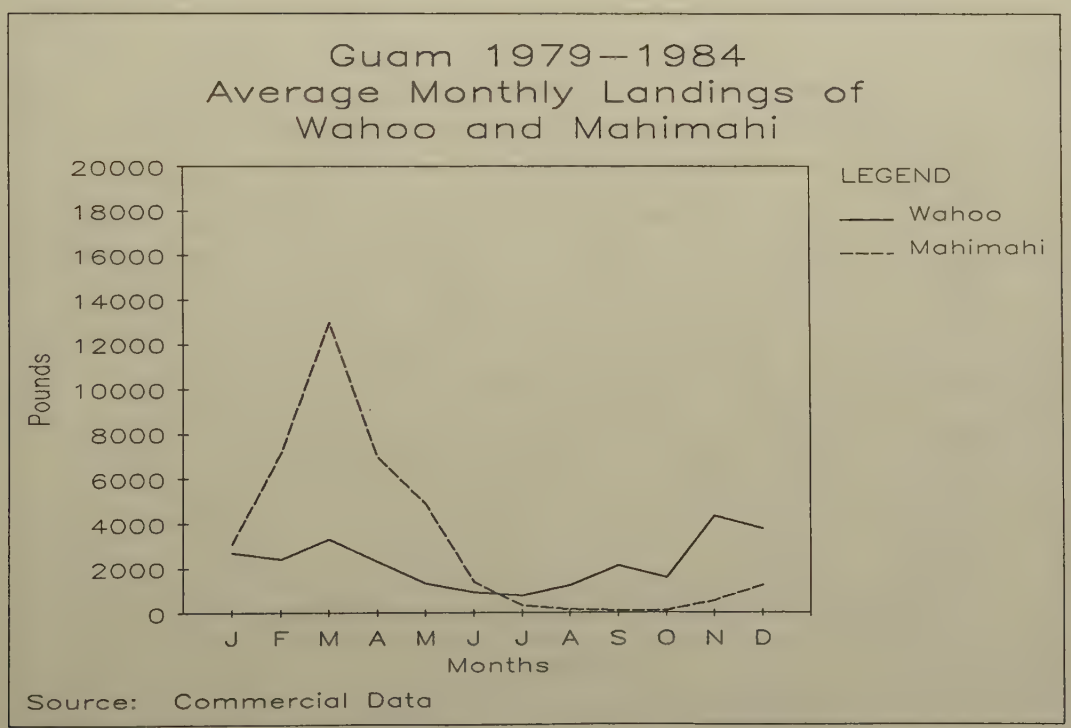


Figure 7.3

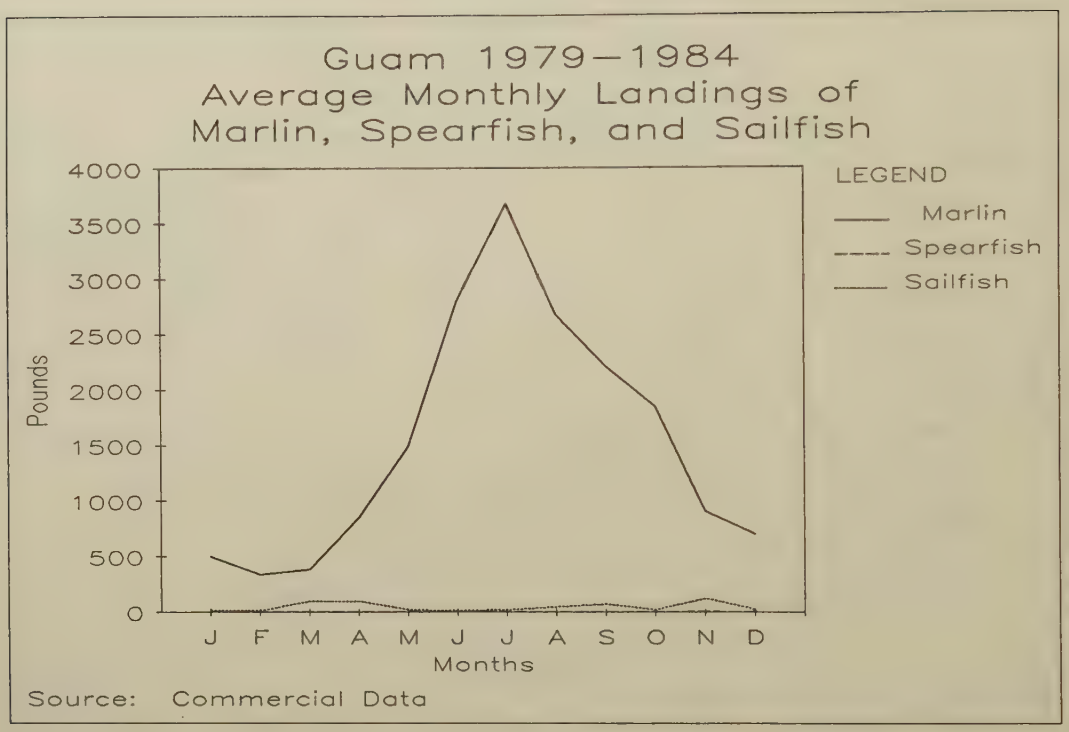


Figure 7.4

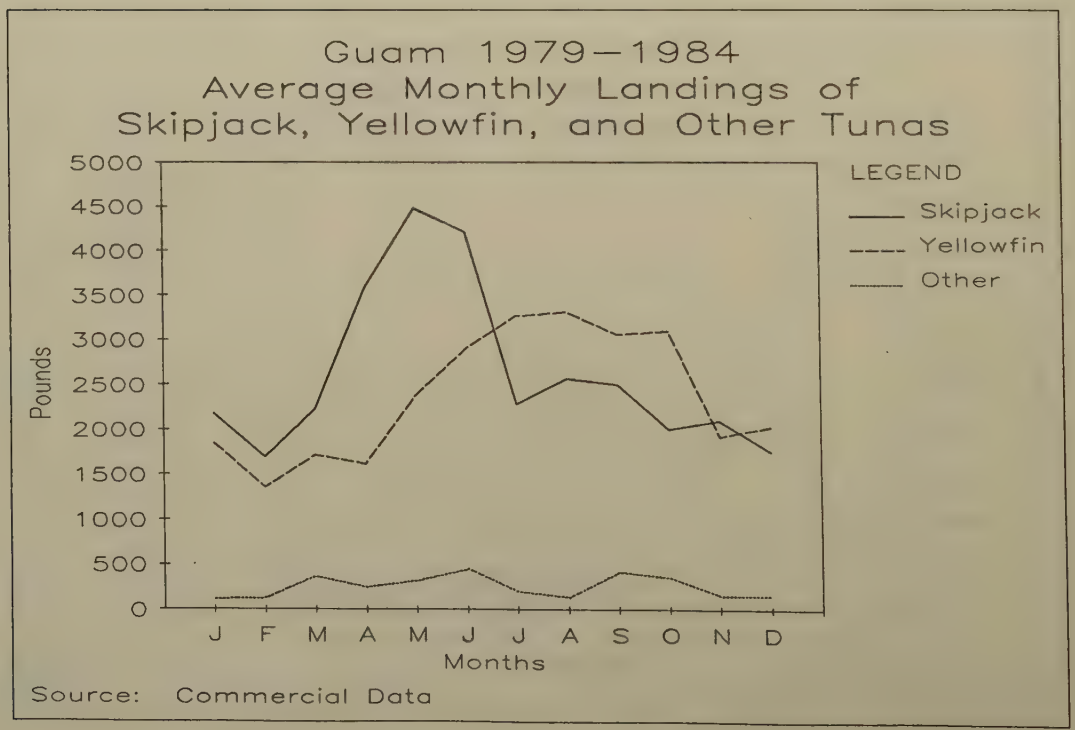


Figure 7.5

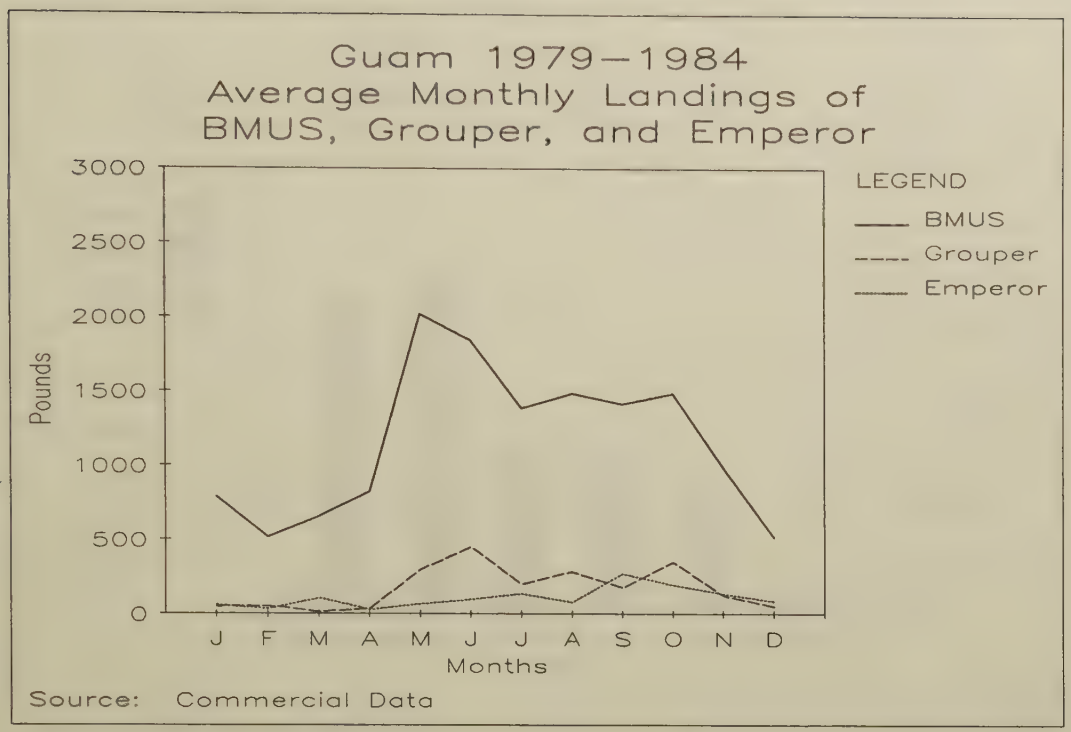

Guam 1979—1984
Average Monthly Landings of
BMUS, Grouper, and Emperor
3000
2500
2000
1500
1000
500
0
Pounds
J F M A M J J A S O N D
Months
LEGEND
BMUS
Grouper
Emperor
Source: Commercial Data

Figure 8.1

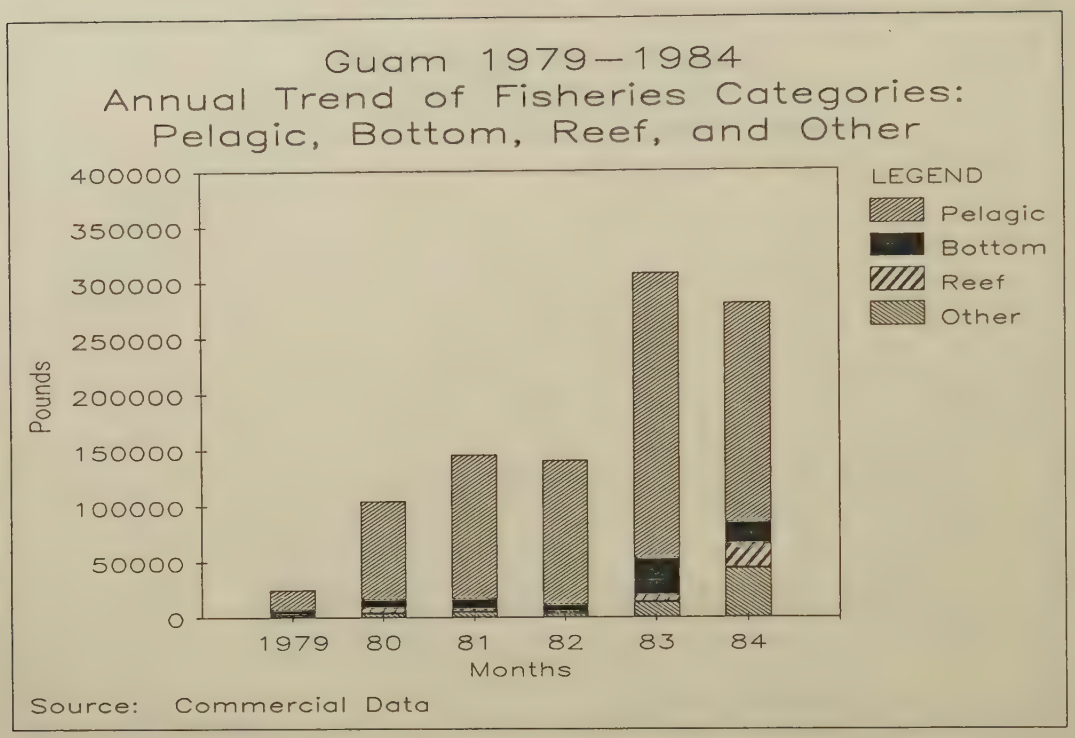


Figure 8.2

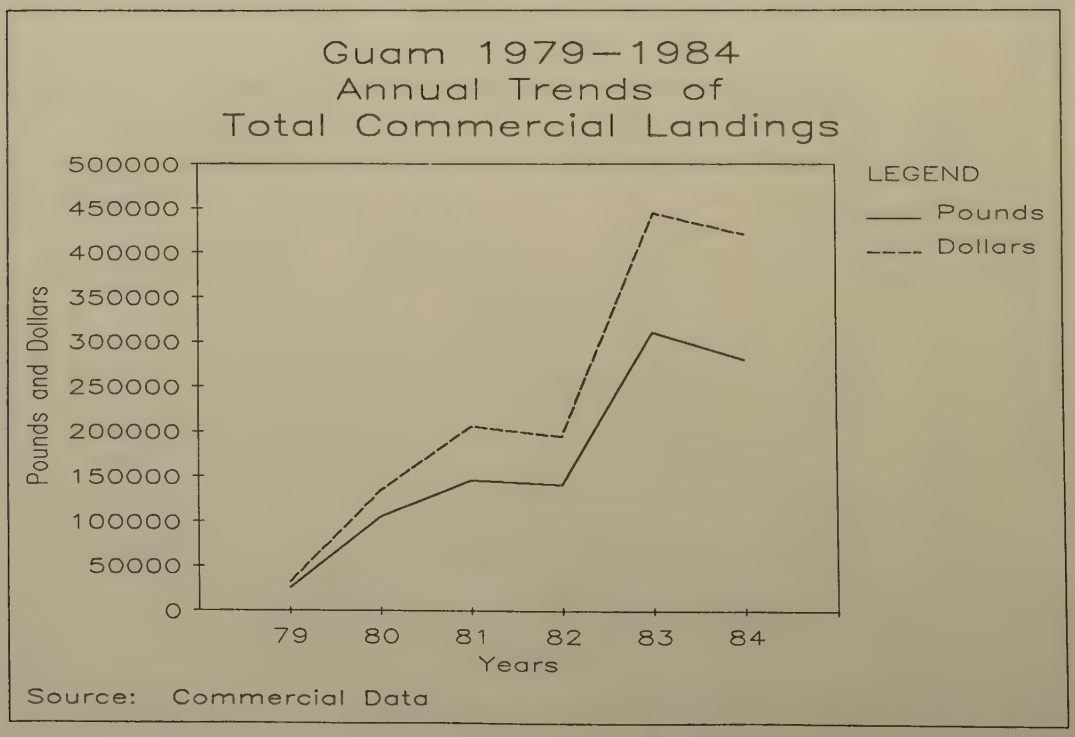


Figure 8.3

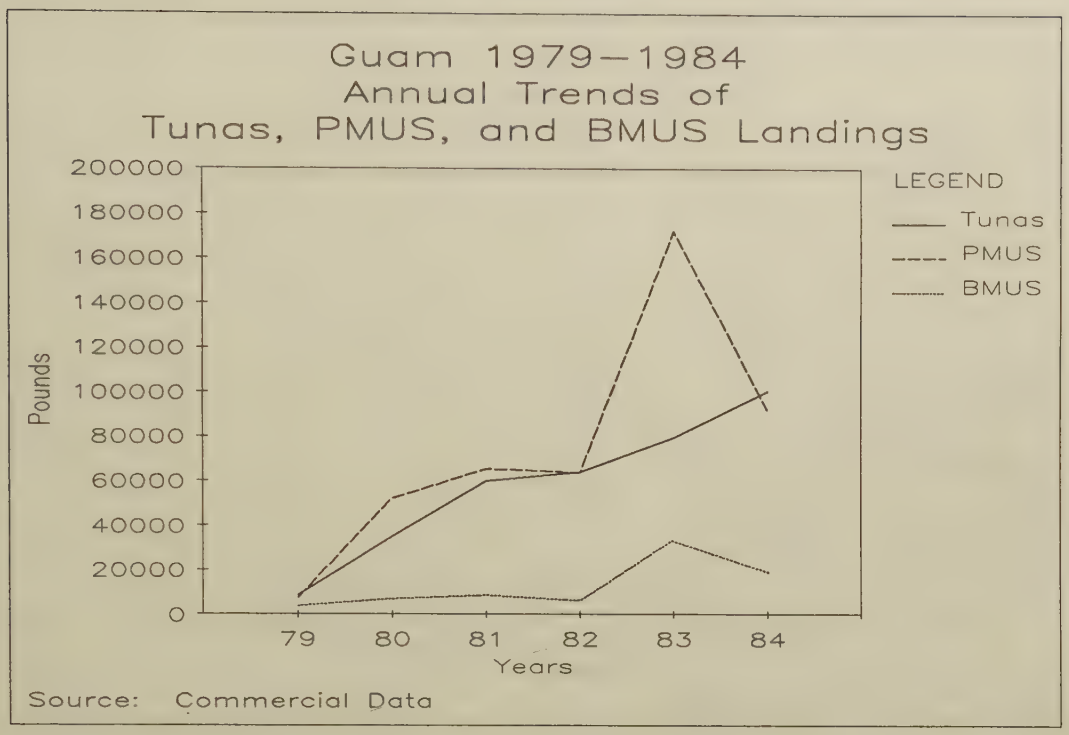


Figure 8.4

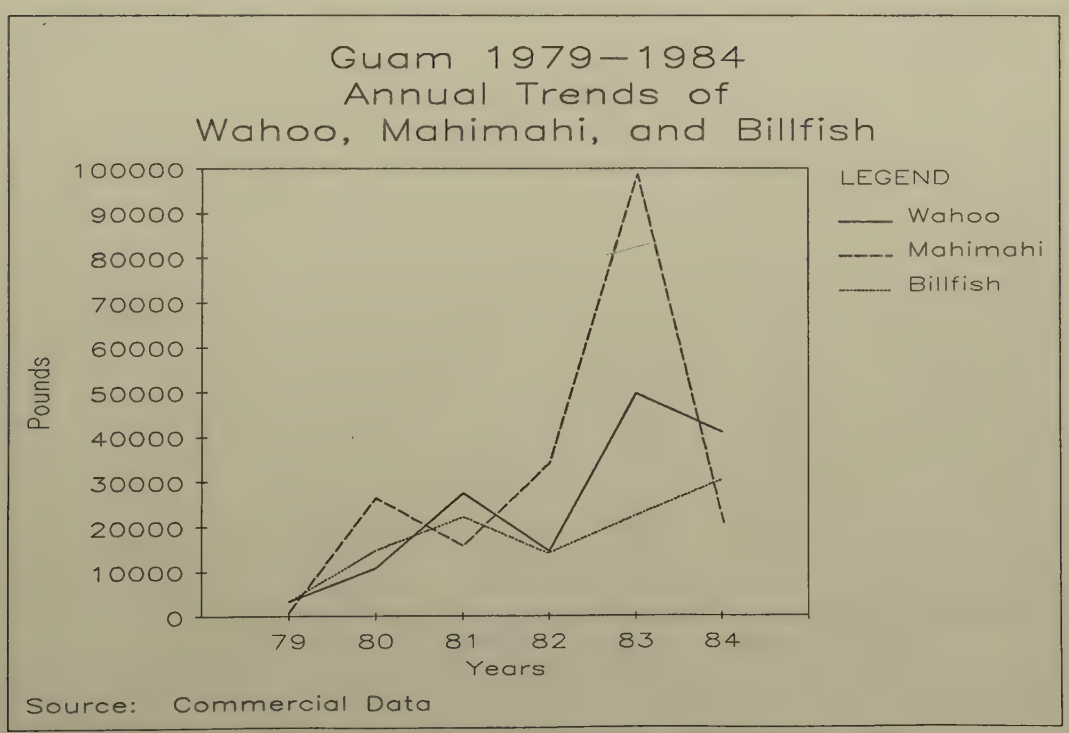


Figure 8.5

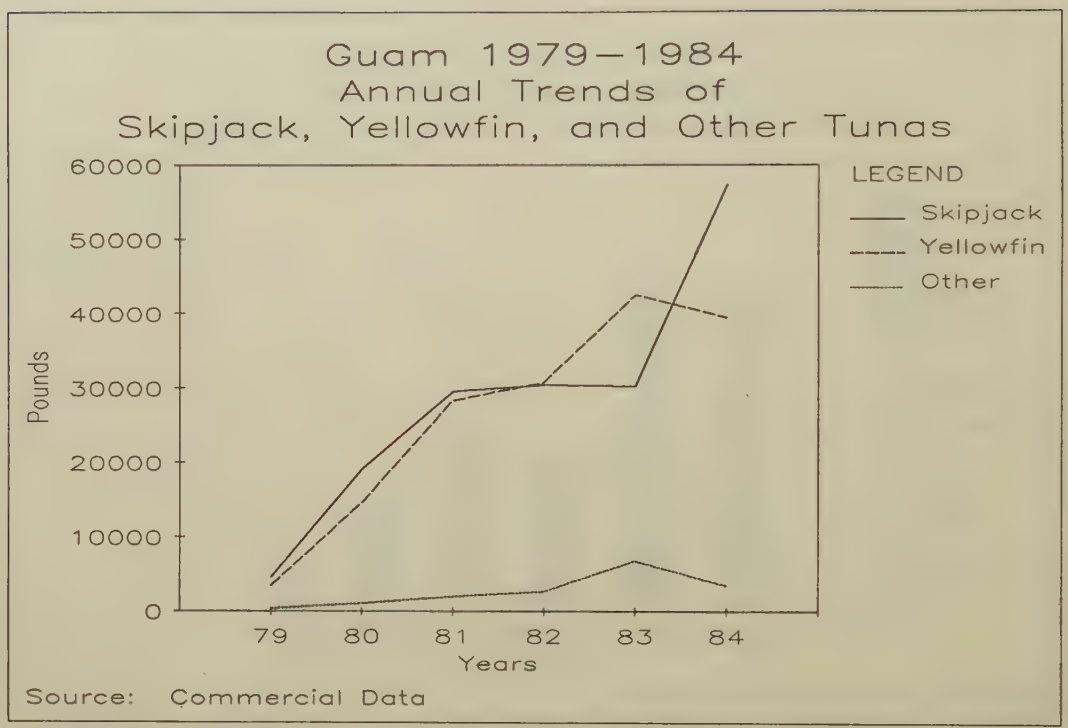

Guam 1979—1984
Annual Trends of
Skipjack, Yellowfin, and Other Tunas
60000
50000
40000
30000
20000
10000
0
Pounds
79
80
81
82
83
84
Years
LEGEND
Skipjack
Yellowfin
Other
Source: Commercial Data

Figure 9.1

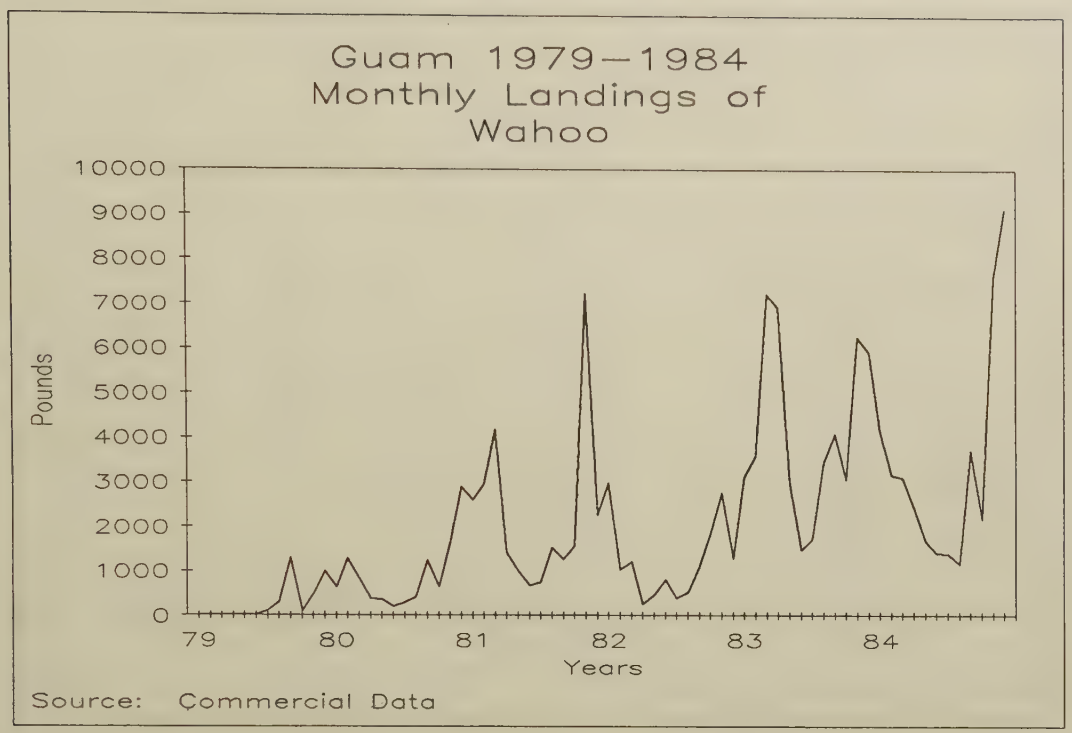


Figure 9.2

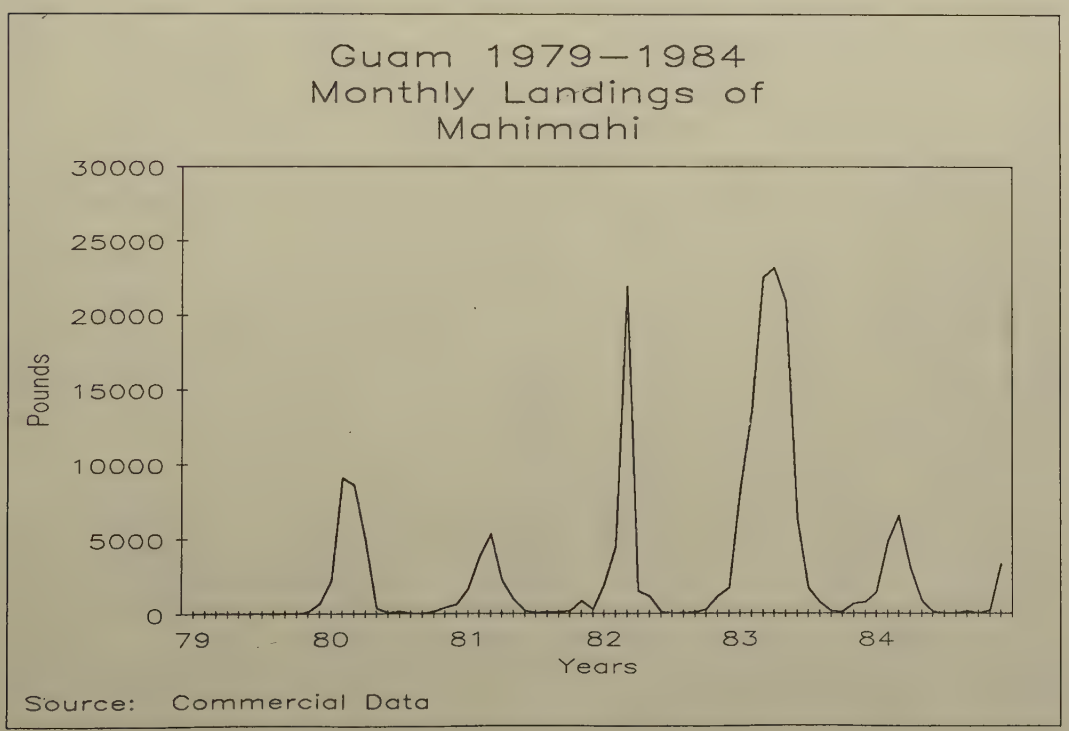


Figure 9.3

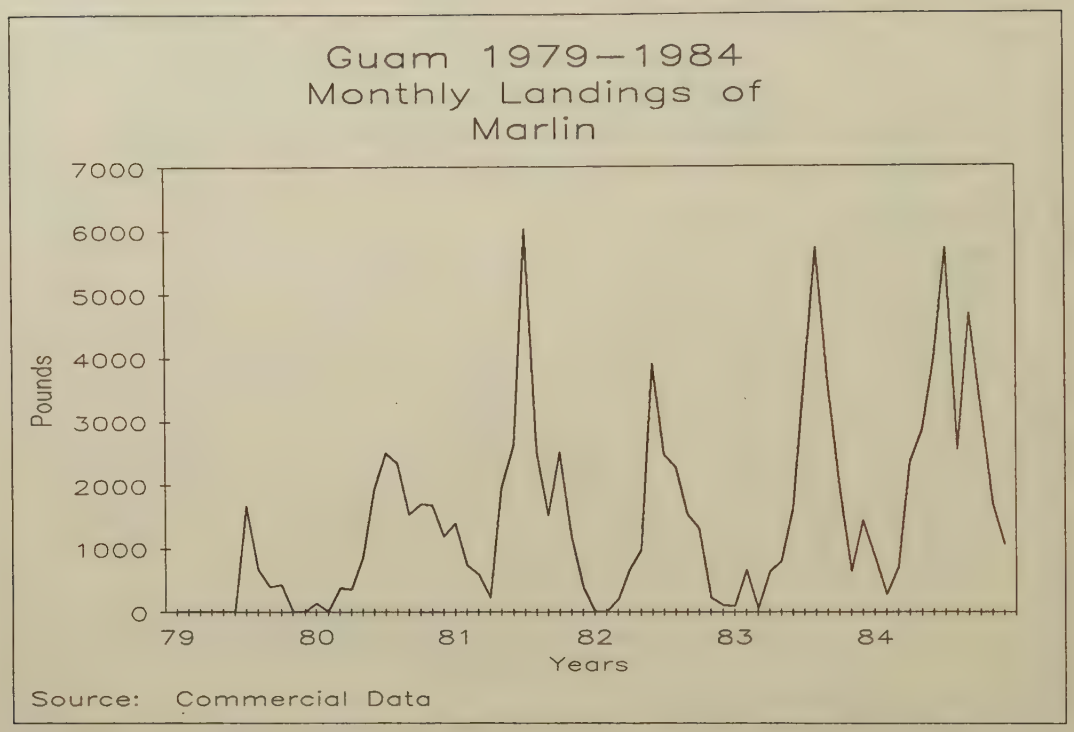
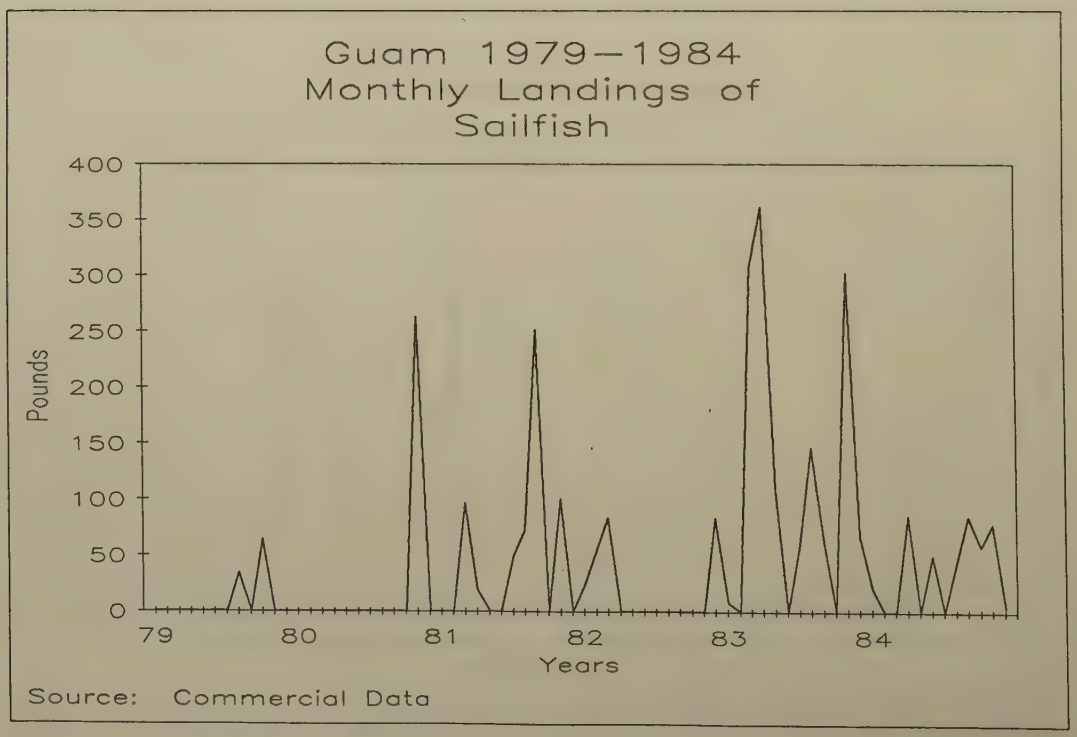


Figure 9.4



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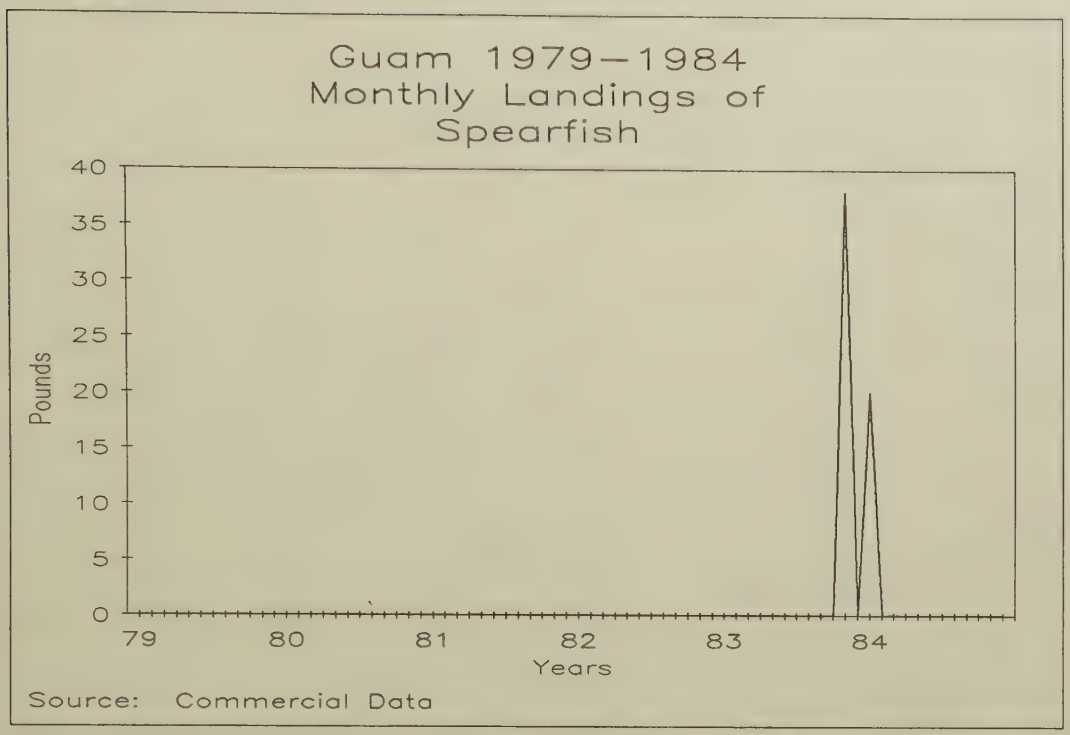


Figure 9.6

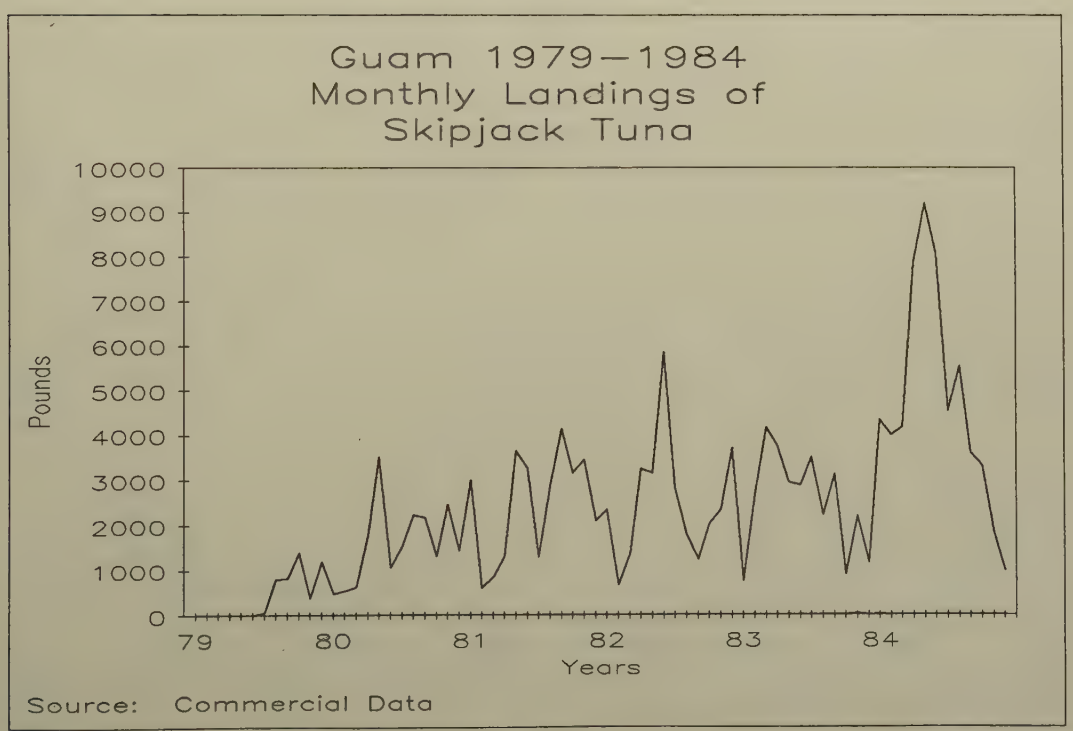


Figure 9.7

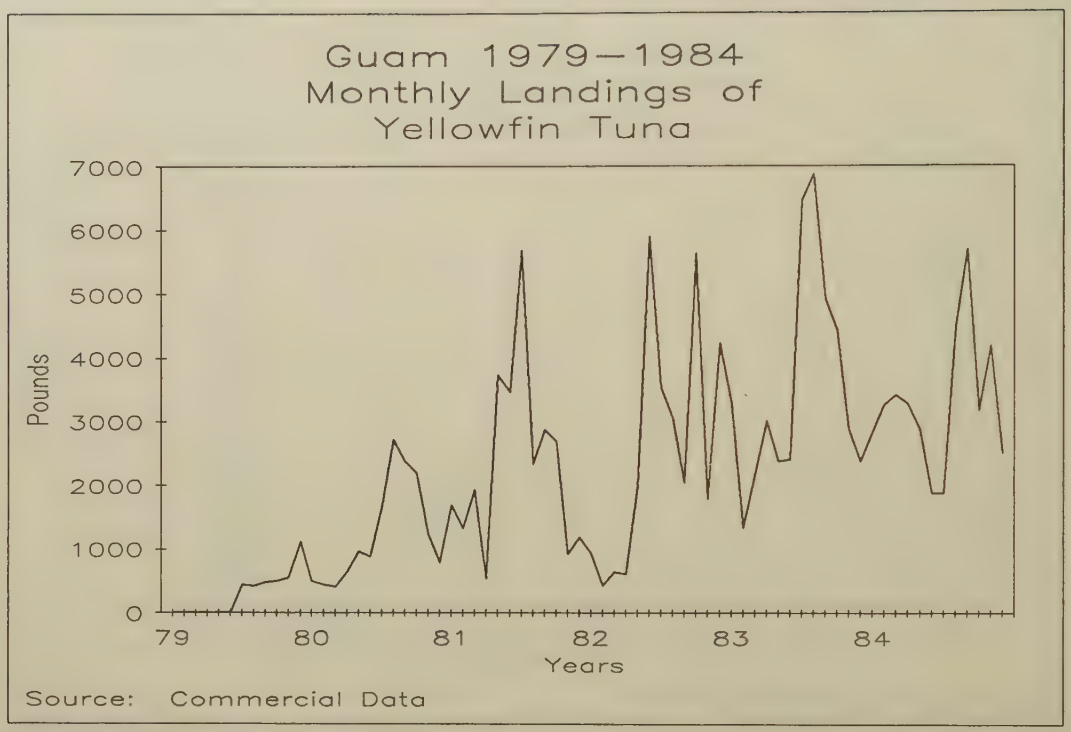


Figure 9.8

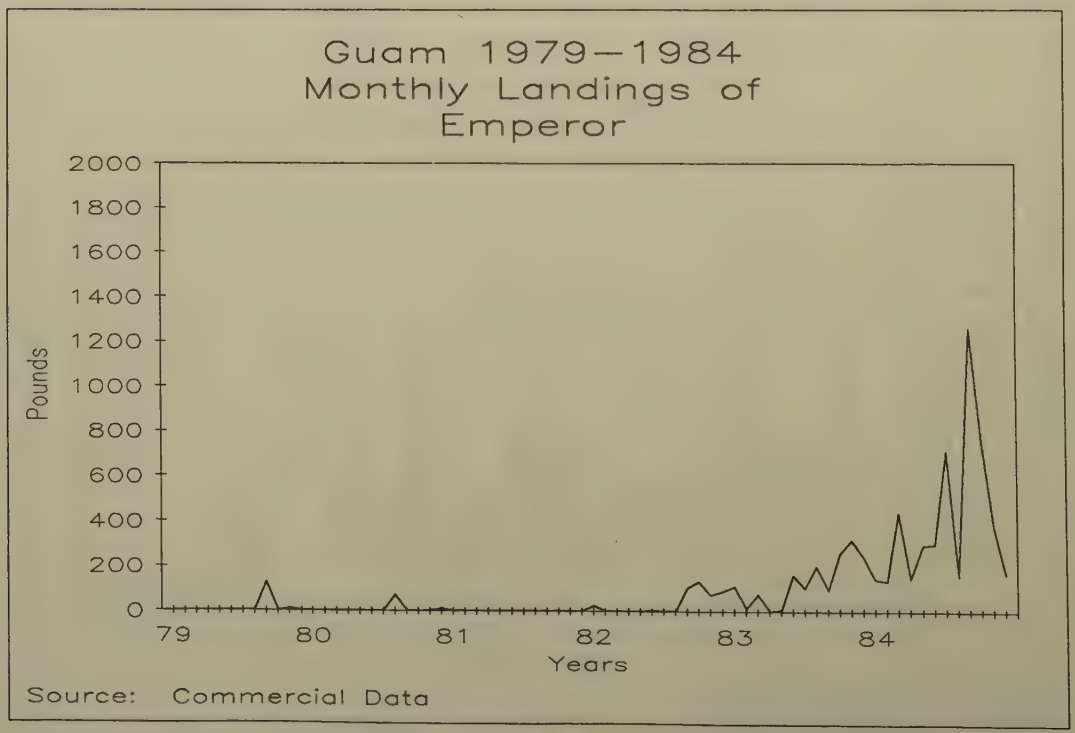
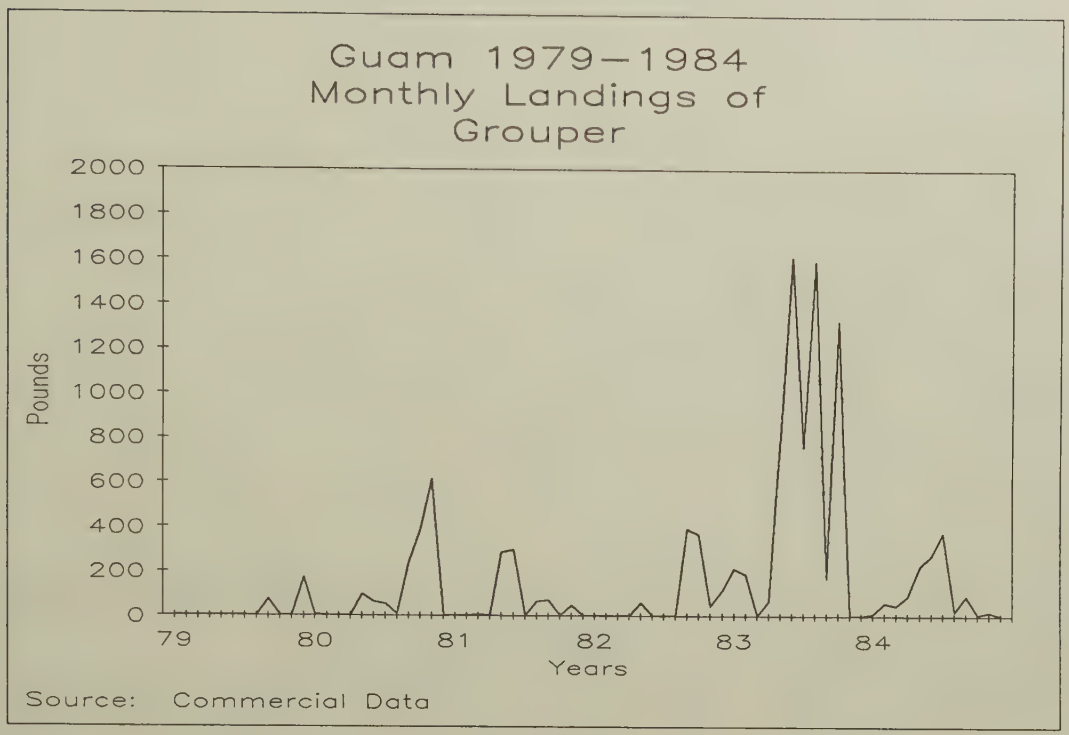


Figure 9.9


Guam 1979—1984
Monthly Landings of
Grouper
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Pounds
79
80
81
82
83
84
Years
Source: Commercial Data

Creel Survey Fishery Statistics 1979–84

TERRITORY OF GUAM
CREEL SURVEY STATISTICS
1979 THROUGH 1984

TABLES AND FIGURES

Compiled By

Guam Division of Aquatic and Wildlife Resources

and the

Western Pacific Fishery Information Network

December 1986

Table 7.1

GUAM DAWR ANNUAL 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	221289.1	11	31748.9	8	6327.7	7	91382.4	9	17266.6	8	1.9	25
BOTTOM FISH	28244.7	22	8418.3	20	1920.5	17	20030.6	22	4560.9	19	1.1	17
SPEAR SNORKEL	669.0	58	110.4	49	72.4	52	303.8	46	199.4	44	1.6	28
SPEAR SCUBA	844.1	70	140.7	40	92.0	41	388.7	44	255.5	45	1.4	31
OTHER	17.2	90	25.7	90	11.2	90	51.4	90	22.3	90	.1	51
TOTAL:	251064.1	10	40444.0	9	7400.8	7	112156.9	9	20158.5	8	1.8	25

Table 7.2

GUAM DAWR ANNUAL 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	505562.3	13	41869.7	15	7393.7	9	116532.2	16	19645.5	10	4.3	16
BOTTOM FISH	37149.2	38	4703.7	29	918.8	24	10860.4	29	2197.0	24	1.6	64
SPEAR SNORKEL	2529.7	62	201.5	44	59.5	47	531.8	42	163.9	46	3.1	23
SPEAR SCUBA	3415.1	48	605.7	42	226.3	35	2087.8	47	763.1	37	2.7	47
TOTAL:	548656.3	11	47380.7	13	8018.1	8	130012.2	14	21431.1	9	4.2	16

Table 7.3

GUAM DAWR ANNUAL 1981
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	447505.8	18	35429.8	8	6762.8	7	98668.5	9	17426.9	8	5.4	18
BOTTOM FISH	61639.0	27	8523.1	17	2081.7	14	22608.0	19	5468.0	16	2.9	40
ATULAI JIG	253.6	70	177.5	63	49.8	61	402.6	61	111.4	59	.9	129*
SPEAR SNORKEL	2099.0	59	298.7	50	112.9	58	1048.2	52	367.8	56	2.8	41
SPEAR SCUBA	4057.5	63	533.6	47	155.3	40	1524.2	48	471.7	43	4.8	49
TOTAL:	515554.9	16	44962.7	7	7883.5	6	124251.5	7	20321.8	7	5.0	17

* Not enough data to properly compute Coefficient of Variation (CV).

Table 7.4

GUAM DAWR ANNUAL 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	550395.8	8	39146.3	5	7566.1	5	100332.6	6	17611.9	7	14.4	11
BOTTOM FISH	60416.7	21	8215.1	11	2129.3	9	18011.5	11	4856.6	11	7.2	20
ATULAI JIG	482.7	88	157.6	88	17.5	88	472.9	88	52.5	88	3.1	0*
SPEAR MIX	448.0	88	24.8	88	9.9	88	74.3	88	29.7	88	18.1	0*
SPEAR SNORKEL	2237.5	63	581.4	64	137.3	40	1800.1	70	365.9	40	5.3	57*
SPEAR SCUBA	77.8	88	22.3	71	19.5	61	39.9	78	29.6	65	2.2	141*
LONG LINE	4442.7	73	320.5	58	39.9	55	1452.0	60	174.4	55	12.5	42*
IKA SHIBI	2786.1	95	648.1	95	54.0	95	1296.2	95	108.0	95	4.3	0*
OTHER	2013.9	81	1062.0	61	75.2	52	2583.1	58	193.1	55	2.6	62
TOTAL:	623301.2	8	50178.1	5	8339.0	4	126062.6	6	19350.8	5	12.8	10

Table 7.5

GUAM DAWR ANNUAL 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	413751.6	12	32085.0	7	6286.6	6	82682.2	7	15042.7	6	12.2	11
BOTTOM FISH	53002.3	25	8620.0	16	2378.5	12	18589.1	16	5230.3	13	5.2	13
ATULAI JIG	11685.4	82	505.0	67	79.7	68	1645.5	73	265.3	74	19.6	0*
SPEAR SNORKEL	1751.1	79	269.8	46	101.1	44	765.3	47	300.3	48	5.8	94
SPEAR SCUBA	7060.4	38	979.4	41	381.7	34	1653.8	47	643.5	39	8.1	7
OTHER	318.3	76	56.9	79	21.8	62	206.3	87	51.7	71	6.4	24*
TOTAL:	487569.1	11	42516.3	6	7763.4	5	105542.3	7	18212.3	5	11.1	10

Table 7.6

GUAM DAWR ANNUAL 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	478939.9	12	35196.2	9	7275.5	7	100366.7	10	19588.3	8	14.3	11
BOTTOM FISH	52354.6	14	7140.6	12	2018.9	11	19157.0	13	5336.8	12	6.9	10
ATULAI JIG	15996.6	55	616.8	52	188.8	49	1785.1	54	523.0	52	24.3	68*
SPEAR SNORKEL	7741.8	32	671.6	30	180.0	29	2984.2	30	773.2	29	17.8	120
SPEAR SCUBA	3470.4	35	461.9	28	177.9	27	878.1	34	313.4	32	6.6	20
OTHER	57.3	89	8.9	89	19.7	89	22.1	89	49.2	89	6.5	0*
TOTAL:	558560.6	10	44095.9	8	8226.0	5	125193.3	8	22028.0	7	13.0	9

* Not enough data to properly compute Coefficient of Variation (CV).

Table 8.1

GUAM DAWR JANUARY 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	12798.3	20	1991.1	16	490.8	12	5218.6	6	1314.0	10	6.8	24
BOTTOM FISH	9.4	88	14.2	88	14.2	88	42.6	88	42.6	88	.7	0*
TOTAL:	12807.7	19	2005.3	16	495.2	13	5261.2	7	1326.6	10	6.8	24

Table 8.2

GUAM DAWR FEBRUARY 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	30302.3	18	2907.4	8	553.4	8	8488.9	2	1612.2	2	10.5	11
BOTTOM FISH	1227.7	92	221.1	82	49.1	70	221.1	82	49.1	70	3.7	0*
SPEAR SNORKEL	13.5	88	2.0	88	8.2	88	6.1	88	24.5	88	6.6	0*
TOTAL:	31543.5	15	3130.5	2	575.1	5	8716.2	2	1681.6	2	10.3	13

Table 8.3

GUAM DAWR MARCH 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	19841.2	68	1748.4	65	322.7	65	5316.4	65	983.4	65	12.0	0*
BOTTOM FISH	463.0	89	18.4	89	18.4	89	36.8	89	36.8	89	25.1	0*
TOTAL:	20304.2	67	1766.8	65	331.4	65	5353.2	65	1009.2	65	12.0	0

* Not enough data to properly compute Coefficient of Variation (CV).

Table 8.4

GUAM DAWR APRIL 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	27935.1	26	2806.4	18	511.0	9	8089.0	21	1456.0	12	10.6	23
BOTTOM FISH	357.0	73	94.8	32	56.2	8	313.2	2	216.7	36	3.1	91*
SPEAR SNORKEL	380.1	89	25.9	89	8.6	89	103.4	89	34.5	89	14.7	0*
TOTAL:	28672.2	24	2927.1	19	538.2	9	8505.7	21	1545.8	13	10.6	22

Table 8.5

GUAM DAWR MAY 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	9253.6	0	3511.9	0	628.2	0	9793.6	0	1752.2	0	2.5	0*
BOTTOM FISH	911.9	0	581.0	0	106.6	0	1975.5	0	362.5	0	1.6	0*
TOTAL:	10165.6	0	4092.9	0	690.8	0	11769.0	0	1942.5	0	2.3	0

Table 8.6

GUAM DAWR JUNE 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	23142.8	36	4244.0	35	793.5	27	12407.8	40	2288.7	33	5.8	14
BOTTOM FISH	5651.4	43	1535.2	47	276.7	27	3575.5	54	613.5	36	2.9	12
SPEAR SNORKEL	237.9	67	75.6	58	50.8	65	175.3	47	125.8	55	2.8	168*
SPEAR SCUBA	566.9	88	24.1	88	16.1	88	72.3	88	48.2	88	23.5	0*
TOTAL:	29599.1	37	5878.9	38	997.4	34	16230.9	42	2831.7	39	5.4	10

* Not enough data to properly compute Coefficient of Variation (CV).

Table 8.7

GUAM DAWR JULY 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	33614.4	29	4060.3	11	899.9	5	11551.5	12	1629.4	9	11.5	76
BOTTOM FISH	819.5	5	317.2	4	33.6	4	634.4	4	67.1	4	2.6	14*
TOTAL:	34433.9	29	4377.5	10	923.2	6	12185.9	12	1682.8	10	11.3	77

Table 8.8

GUAM DAWR AUGUST 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	6821.8	0	1812.1	0	408.9	0	4661.2	0	1032.6	0	1.8	48
BOTTOM FISH	2838.0	0	658.2	0	224.5	0	1513.8	0	382.8	0	3.1	68
OTHER	13.4	0	20.0	0	8.7	0	40.0	0	17.4	0	.3	141*
TOTAL:	9673.2	0	2490.3	0	483.1	0	6215.0	0	1219.5	0	1.9	51

Table 8.9

GUAM DAWR SEPTEMBER 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	4878.3	39	1620.0	10	323.3	11	3561.3	11	691.1	10	3.0	24
BOTTOM FISH	6404.6	71	1246.7	59	203.0	64	2378.9	62	388.8	67	4.3	62*
TOTAL:	11283.0	56	2866.7	28	427.7	18	5940.2	26	897.6	17	3.2	31

* Not enough data to properly compute Coefficient of Variation (CV).

Table 8.10

GUAM DAWR OCTOBER 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	17243.8	18	2312.4	16	454.2	13	8625.5	17	1725.1	18	8.0	28
BOTTOM FISH	2550.9	42	829.7	42	229.5	41	2299.0	51	654.3	51	3.6	2*
SPEAR SCUBA	0	0	31.0	87	20.7	87	124.1	87	82.8	87	0	0*
TOTAL:	19794.8	16	3173.2	21	558.7	17	11048.6	21	2054.3	17	7.7	29

Table 8.11

GUAM DAWR NOVEMBER 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	8569.2	72	1894.1	61	422.3	54	3927.1	53	909.0	46	4.0	120*
BOTTOM FISH	3072.9	48	1627.9	43	487.8	9	4341.8	54	1161.8	12	2.9	35
SPEAR SCUBA	189.0	62	50.3	27	24.8	6	100.7	27	49.6	6	3.3	68*
TOTAL:	11831.2	51	3572.4	13	725.1	22	8369.6	11	1756.9	15	3.2	47

Table 8.12

GUAM DAWR DECEMBER 1979
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	10796.4	0	2205.6	0	468.8	0	7256.4	0	1584.9	0	5.3	26*
BOTTOM FISH	2623.7	0	789.2	0	150.1	0	1618.5	0	340.2	0	4.5	14*
SPEAR SCUBA	2.6	0	20.0	0	20.0	0	40.0	0	40.0	0	.1	0*
TOTAL:	13422.8	0	3014.9	0	536.0	0	8914.9	0	1730.2	0	4.6	5

* Not enough data to properly compute Coefficient of Variation (CV).

Figure 10.1

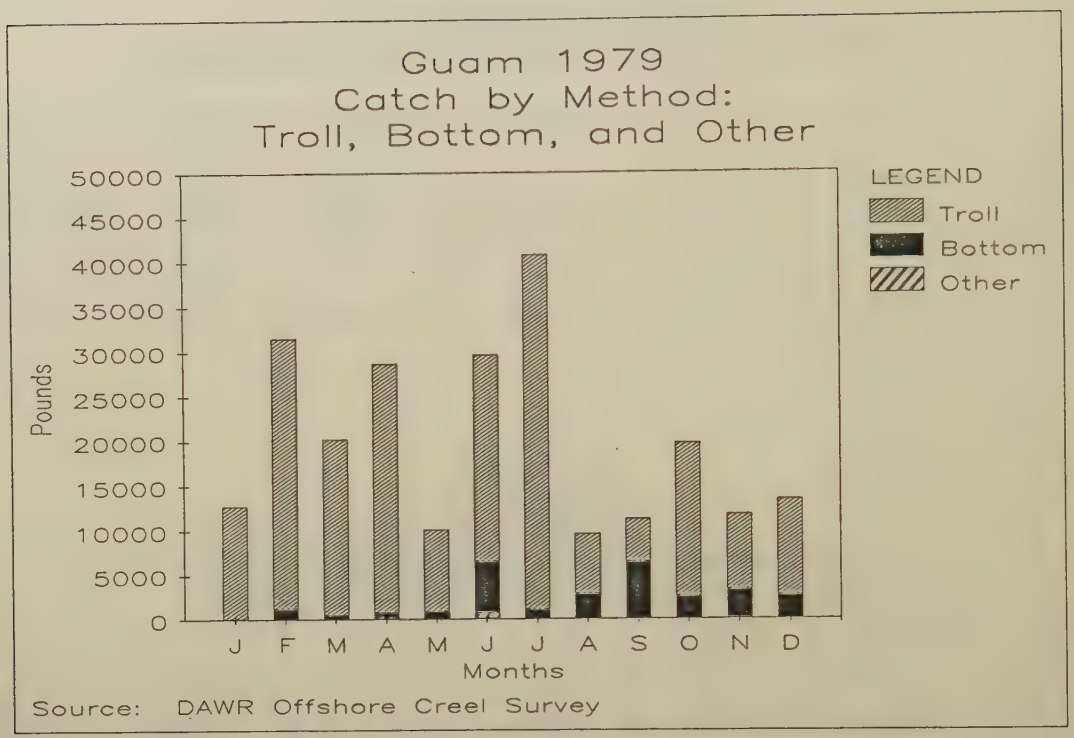


Figure 10.2

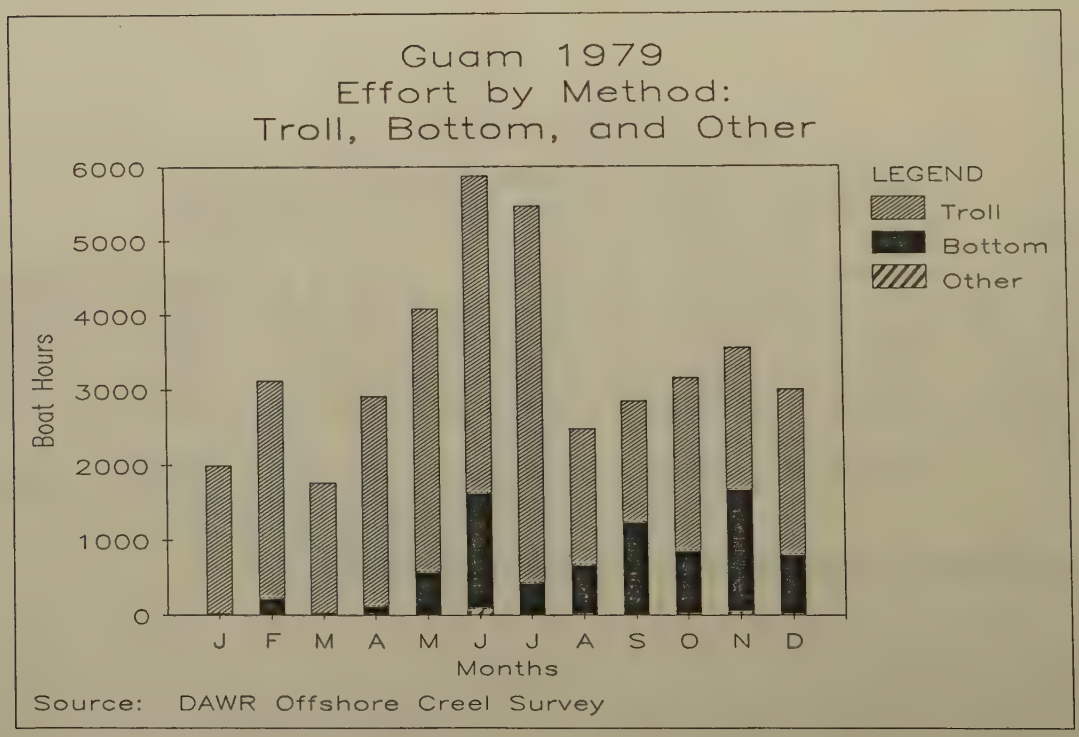


Table 9.1

GUAM DAWR ANNUAL 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	280.5	0.11	0	0	280.5	0.99	0	0
SQUIRRELFISH	58.7	0.02	0	0	11.2	0.04	47.5	3.11
SCORPIONFISH	84.2	0.03	0	0	84.2	0.30	0	0
GROUPER	2019.9	0.80	0	0	2010.7	7.12	9.2	0.60
JACKS	3307.8	1.32	59.2	0.03	3102.3	10.98	146.4	9.56
RAINBOW RUNNER	1961.7	0.78	1961.7	0.89	0	0	0	0
DOLPHINFISH (MAHIMAHI)	68175.2	27.15	68175.2	30.81	0	0	0	0
SNAPPERS	4109.9	1.64	0	0	4109.9	14.55	0	0
LEHI (SILVERMOUTH)	454.5	0.18	0	0	454.5	1.61	0	0
UKU (JOBFISH)	291.8	0.12	0	0	291.8	1.03	0	0
EHU (PINK SNAPPER)	2334.1	0.93	0	0	2334.1	8.26	0	0
ONAGA (RED SNAPPER)	1167.1	0.46	0	0	1167.1	4.13	0	0
BLUE LINED SNAPPER	72.9	0.03	0	0	72.9	0.26	0	0
YELLOWTAIL KALIKALI	300.2	0.12	0	0	300.2	1.06	0	0
OPAKAPAKA (PINK SNAP)	115.0	0.05	0	0	115.0	0.41	0	0
YELLOWEYE OPAKAPAKA	897.7	0.36	0	0	897.7	3.18	0	0
KALIKALI (PINK SNAPPER)	246.9	0.10	0	0	246.9	0.87	0	0
GINDAI (FLOWER SNAPPER)	1084.6	0.43	0	0	1084.6	3.84	0	0
EMPERORS	7573.2	3.02	0	0	7573.2	26.81	0	0
GOATFISH	261.2	0.10	0	0	218.8	0.77	42.4	2.77
RUDDERFISH	456.2	0.18	0	0	0	0	456.2	29.81
BUTTERFLYFISH	611.0	0.24	0	0	592.1	2.10	18.9	1.24
ANGELFISH	171.0	0.07	0	0	168.3	0.60	2.7	0.17
MULLET	33.7	0.01	0	0	33.7	0.12	0	0
BARRACUDA	5106.6	2.03	5106.6	2.31	0	0	0	0
WRASSE	103.8	0.04	0	0	103.8	0.37	0	0
PARROTFISH	116.4	0.05	0	0	0	0	116.4	7.61
SURGEONFISH AND TANGS	491.7	0.20	0	0	106.6	0.38	385.1	25.16
MOORISH IDOLS	5.3	0	0	0	0	0	5.3	0.35
WAHOO	25349.2	10.10	25349.2	11.46	0	0	0	0
KAWAKAWA	332.3	0.13	332.3	0.15	0	0	0	0
DOGTOOTH TUNA	112.7	0.04	112.7	0.05	0	0	0	0
SKIPJACK TUNA	56689.6	22.58	56689.6	25.62	0	0	0	0
YELLOWFIN TUNA	29170.5	11.62	29170.5	13.18	0	0	0	0
BILLFISH	5195.9	2.07	5195.9	2.35	0	0	0	0
BLUE MARLIN	28356.9	11.29	28356.9	12.81	0	0	0	0
TRIGGERFISH	133.8	0.05	0	0	106.8	0.38	27.1	1.77
FILEFISH	23.0	0.01	0	0	23.0	0.08	0	0
PORCUPINEFISH	0	0	0	0	0	0	0	0
ASSORTED BOTTOM FISH	2754.9	1.10	0	0	2754.9	9.75	0	0
ASSORTED TROLLING FISH	779.3	0.31	779.3	0.35	0	0	0	0
ASSORTED REEF FISH	235.2	0.09	0	0	0	0	235.2	15.37
OCTOPUS	38.0	0.02	0	0	0	0	38.0	2.48
TOTAL ALL SPECIES:	251064.1	100.00	221289.1	88.14	28244.7	11.25	1530.3	0.61

Table 9.2

GUAM DAWR JANUARY 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
JACKS	30.2	0.24	30.2	0.24	0	0
DOLPHINFISH (MAHIMAHI)	8207.7	64.08	8207.7	64.13	0	0
EHU (PINK SNAPPER)	9.4	0.07	0	0	9.4	100.00
BARRACUDA	447.0	3.49	447.0	3.49	0	0
WAHOO	1757.8	13.72	1757.8	13.73	0	0
SKIPJACK TUNA	1631.7	12.74	1631.7	12.75	0	0
YELLOWFIN TUNA	724.0	5.65	724.0	5.66	0	0
TOTAL ALL SPECIES:	12807.7	100.00	12798.3	99.93	9.4	0.07

Table 9.3

GUAM DAWR FEBRUARY 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
DOLPHINFISH (MAHIMAHI)	20072.3	63.63	20072.3	66.24	0	0	0	0
EHU (PINK SNAPPER)	526.2	1.67	0	0	526.2	42.86	0	0
ONAGA (RED SNAPPER)	638.4	2.02	0	0	638.4	52.00	0	0
GINDAI (FLOWER SNAPPER)	28.1	0.09	0	0	28.1	2.29	0	0
EMPERORS	35.1	0.11	0	0	35.1	2.86	0	0
BARRACUDA	1362.5	4.32	1362.5	4.50	0	0	0	0
PARROTFISH	13.5	0.04	0	0	0	0	13.5	100.00
WAHOO	2343.0	7.43	2343.0	7.73	0	0	0	0
DOGTOOTH TUNA	65.6	0.21	65.6	0.22	0	0	0	0
SKIPJACK TUNA	2288.8	7.26	2288.8	7.55	0	0	0	0
YELLOWFIN TUNA	2821.9	8.95	2821.9	9.31	0	0	0	0
BLUE MARLIN	1348.2	4.27	1348.2	4.45	0	0	0	0
TOTAL ALL SPECIES:	31543.5	100.00	30302.3	96.07	1227.7	3.89	13.5	0.04

Table 9.4

GUAM DAWR MARCH 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
DOLPHINFISH (MAHIMAHI)	10738.3	52.89	10738.3	54.12	0	0
WAHOO	3385.0	16.67	3385.0	17.06	0	0
SKIPJACK TUNA	5303.0	26.12	5303.0	26.73	0	0
YELLOWFIN TUNA	415.0	2.04	415.0	2.09	0	0
ASSORTED BOTTOM FISH	463.0	2.28	0	0	463.0	100.00
TOTAL ALL SPECIES:	20304.2	100.00	19841.2	97.72	463.0	2.28

Table 9.5

GUAM DAWR APRIL 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	6.0	0.02	0	0	6.0	1.68	0	0
JACKS	72.0	0.25	0	0	72.0	20.17	0	0
DOLPHINFISH (MAHIMAHI)	13666.5	47.66	13666.5	48.92	0	0	0	0
EHU (PINK SNAPPER)	120.0	0.42	0	0	120.0	33.61	0	0
ONAGA (RED SNAPPER)	150.0	0.52	0	0	150.0	42.02	0	0
GOATFISH	38.0	0.13	0	0	0	0	38.0	10.00
BARRACUDA	302.7	1.06	302.7	1.08	0	0	0	0
SURGEONFISH AND TANGS	307.1	1.07	0	0	3.0	0.84	304.1	80.00
WAHOO	1712.9	5.97	1712.9	6.13	0	0	0	0
SKIPJACK TUNA	10736.3	37.45	10736.3	38.43	0	0	0	0
YELLOWFIN TUNA	1516.7	5.29	1516.7	5.43	0	0	0	0
TRIGGERFISH	6.0	0.02	0	0	6.0	1.68	0	0
ASSORTED REEF FISH	38.0	0.13	0	0	0	0	38.0	10.00
TOTAL ALL SPECIES:	28672.2	100.00	27935.1	97.43	357.0	1.24	380.1	1.33

Table 9.6

GUAM DAWR MAY 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
GROUPER	84.6	0.83	0	0	84.6	9.28
JACKS	314.9	3.10	0	0	314.9	34.54
RAINBOW RUNNER	174.9	1.72	174.9	1.89	0	0
DOLPHINFISH (MAHIMAHI)	805.1	7.92	805.1	8.70	0	0
SNAPPERS	155.1	1.53	0	0	155.1	17.01
EHU (PINK SNAPPER)	296.1	2.91	0	0	296.1	32.47
GOATFISH	37.6	0.37	0	0	37.6	4.12
BARRACUDA	76.5	0.75	76.5	0.83	0	0
SURGEONFISH AND TANGS	23.5	0.23	0	0	23.5	2.58
WAHOO	1063.8	10.46	1063.8	11.50	0	0
SKIPJACK TUNA	4251.6	41.82	4251.6	45.94	0	0
YELLOWFIN TUNA	961.8	9.46	961.8	10.39	0	0
BLUE MARLIN	1919.9	18.89	1919.9	20.75	0	0
TOTAL ALL SPECIES:	10165.6	100.00	9253.6	91.03	911.9	8.97

Table 9.7

GUAM DAWR JUNE 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	549.3	1.86	0	0	549.3	9.72	0	0
GROUPER	758.1	2.56	0	0	758.1	13.41	0	0
JACKS	326.5	1.10	0	0	164.8	2.92	161.7	20.09
RAINBOW RUNNER	92.8	0.31	92.8	0.40	0	0	0	0
DOLPHINFISH (MAHIMAHI)	3393.8	11.47	3393.8	14.66	0	0	0	0
SNAPPERS	197.8	0.67	0	0	197.8	3.50	0	0
EHU (PINK SNAPPER)	659.2	2.23	0	0	659.2	11.66	0	0
YELLOWEYE OPAKAPAKA	98.9	0.33	0	0	98.9	1.75	0	0
KALIKALI (PINK SNAPPER)	98.9	0.33	0	0	98.9	1.75	0	0
EMPERORS	2963.6	10.01	0	0	2963.6	52.44	0	0
GOATFISH	33.0	0.11	0	0	33.0	0.58	0	0
RUDDERFISH	395.2	1.34	0	0	0	0	395.2	49.10
BARRACUDA	453.2	1.53	453.2	1.96	0	0	0	0
WRASSE	71.4	0.24	0	0	71.4	1.26	0	0
PARROTFISH	21.9	0.07	0	0	0	0	21.9	2.73
WAHOO	2276.8	7.69	2276.8	9.84	0	0	0	0
KAWAKAWA	160.6	0.54	160.6	0.69	0	0	0	0
SKIPJACK TUNA	9674.7	32.69	9674.7	41.80	0	0	0	0
YELLOWFIN TUNA	4642.8	15.69	4642.8	20.06	0	0	0	0
BLUE MARLIN	2448.1	8.27	2448.1	10.58	0	0	0	0
TRIGGERFISH	89.4	0.30	0	0	56.6	1.00	32.8	4.08
ASSORTED REEF FISH	193.2	0.65	0	0	0	0	193.2	24.01
TOTAL ALL SPECIES:	29599.1	100.00	23142.8	78.19	5651.4	19.09	804.8	2.72

Table 9.8

GUAM DAWR JULY 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
GROUPER	47.5	0.14	0	0	47.5	5.80
JACKS	47.5	0.14	0	0	47.5	5.80
RAINBOW RUNNER	407.2	1.18	407.2	1.21	0	0
DOLPHINFISH (MAHIMAHI)	901.8	2.62	901.8	2.68	0	0
SNAPPERS	204.3	0.59	0	0	204.3	24.93
YELLOWTAIL KALIKALI	118.8	0.34	0	0	118.8	14.49
YELLOWEYE OPAKAPAKA	285.1	0.83	0	0	285.1	34.78
KALIKALI (PINK SNAPPER)	83.1	0.24	0	0	83.1	10.14
EMPERORS	19.0	0.06	0	0	19.0	2.32
MULLET	14.3	0.04	0	0	14.3	1.74
BARRACUDA	382.7	1.11	382.7	1.14	0	0
WAHOO	1049.4	3.05	1049.4	3.12	0	0
KAWAKAWA	4.6	0.01	4.6	0.01	0	0
DOGTOOTH TUNA	33.1	0.10	33.1	0.10	0	0
SKIPJACK TUNA	7275.1	21.13	7275.1	21.64	0	0
YELLOWFIN TUNA	9541.5	27.71	9541.5	28.39	0	0
BILLFISH	3887.2	11.29	3887.2	11.56	0	0
BLUE MARLIN	10017.6	29.09	10017.6	29.80	0	0
ASSORTED TROLLING FISH	114.2	0.33	114.2	0.34	0	0
TOTAL ALL SPECIES:	34433.9	100.00	33614.3	97.62	819.5	2.38

Table 9.9

GUAM DAWR AUGUST 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	191.8	1.98	0	0	186.2	6.56	5.6	41.46
RAINBOW RUNNER	208.2	2.15	208.2	3.05	0	0	0	0
DOLPHINFISH (MAHIMAHI)	149.1	1.54	149.1	2.19	0	0	0	0
SNAPPERS	130.4	1.35	0	0	130.4	4.60	0	0
LEHI (SILVERMOUTH)	109.8	1.14	0	0	109.8	3.87	0	0
EMPERORS	2284.5	23.62	0	0	2284.5	80.50	0	0
GOATFISH	51.5	0.53	0	0	51.5	1.81	0	0
ANGELFISH	2.6	0.03	0	0	0	0	2.6	19.51
BARRACUDA	307.6	3.18	307.6	4.51	0	0	0	0
WRASSE	37.8	0.39	0	0	37.8	1.33	0	0
SURGEONFISH AND TANGS	24.0	0.25	0	0	24.0	0.85	0	0
MOORISH IDOLS	5.2	0.05	0	0	0	0	5.2	39.02
WAHOO	1161.8	12.01	1161.8	17.03	0	0	0	0
SKIPJACK TUNA	1691.8	17.49	1691.8	24.80	0	0	0	0
YELLOWFIN TUNA	104.1	1.08	104.1	1.53	0	0	0	0
BLUE MARLIN	3199.1	33.07	3199.1	46.90	0	0	0	0
TRIGGERFISH	13.7	0.14	0	0	13.7	0.48	0	0
TOTAL ALL SPECIES:	9673.2	100.00	6821.8	70.52	2838.0	29.34	13.4	0.14

Table 9.10

GUAM DAWR SEPTEMBER 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
SCORPIONFISH	62.1	0.55	0	0	62.1	0.97
GROUPER	630.9	5.59	0	0	630.9	9.85
JACKS	132.6	1.17	0	0	132.6	2.07
SNAPPERS	1217.0	10.79	0	0	1217.0	19.00
LEHI (SILVERMOUTH)	203.0	1.80	0	0	203.0	3.17
EHU (PINK SNAPPER)	675.2	5.98	0	0	675.2	10.54
ONAGA (RED SNAPPER)	29.0	0.26	0	0	29.0	0.45
BLUE LINED SNAPPER	8.3	0.07	0	0	8.3	0.13
GINDAI (FLOWER SNAPPER)	601.9	5.33	0	0	601.9	9.40
EMPERORS	1236.5	10.96	0	0	1236.5	19.31
SURGEONFISH AND TANGS	24.9	0.22	0	0	24.9	0.39
WAHOO	1329.8	11.79	1329.8	27.26	0	0
SKIPJACK TUNA	1862.4	16.51	1862.4	38.18	0	0
YELLOWFIN TUNA	950.4	8.42	950.4	19.48	0	0
TRIGGERFISH	21.5	0.19	0	0	21.5	0.34
ASSORTED BOTTOM FISH	1561.7	13.84	0	0	1561.7	24.38
ASSORTED TROLLING FISH	735.8	6.52	735.8	15.08	0	0
TOTAL ALL SPECIES:	11283.0	100.00	4878.3	43.24	6404.6	56.76

Table 9.11

GUAM DAWR OCTOBER 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
GROUPER	48.3	0.24	0	0	48.3	1.89
JACKS	880.7	4.45	0	0	880.7	34.53
RAINBOW RUNNER	180.6	0.91	180.6	1.05	0	0
DOLPHINFISH (MAHIMAHI)	627.0	3.17	627.0	3.64	0	0
SNAPPERS	48.3	0.24	0	0	48.3	1.89
UKU (JOBFISH)	118.1	0.60	0	0	118.1	4.63
BLUE LINED SNAPPER	59.1	0.30	0	0	59.1	2.32
YELLOWEYE OPAKAPAKA	102.0	0.52	0	0	102.0	4.00
EMPERORS	553.2	2.79	0	0	553.2	21.68
GOATFISH	37.6	0.19	0	0	37.6	1.47
BUTTERFLYFISH	542.4	2.74	0	0	542.4	21.26
ANGELFISH	161.1	0.81	0	0	161.1	6.32
BARRACUDA	528.2	2.67	528.2	3.06	0	0
WAHOO	4048.1	20.45	4048.1	23.48	0	0
KAWAKAWA	65.1	0.33	65.1	0.38	0	0
SKIPJACK TUNA	5504.8	27.81	5504.8	31.92	0	0
YELLOWFIN TUNA	1397.1	7.06	1397.1	8.10	0	0
BLUE MARLIN	4893.1	24.72	4893.1	28.38	0	0
TOTAL ALL SPECIES:	19794.8	100.00	17243.8	87.11	2550.9	12.89

Table 9.12

GUAM DAWR NOVEMBER 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	34.6	0.29	0	0	0	0	34.6	18.32
JACKS	2227.1	18.82	0	0	2227.1	72.47	0	0
DOLPHINFISH (MAHIMAHI)	471.8	3.99	471.8	5.51	0	0	0	0
SNAPPERS	488.8	4.13	0	0	488.8	15.91	0	0
EHU (PINK SNAPPER)	127.0	1.07	0	0	127.0	4.13	0	0
OPAKAPAKA (PINK SNAP)	111.1	0.94	0	0	111.1	3.62	0	0
GINDAI (FLOWER SNAPPER)	74.1	0.63	0	0	74.1	2.41	0	0
RUDDERFISH	27.7	0.23	0	0	0	0	27.7	14.65
BUTTERFLYFISH	56.7	0.48	0	0	45.0	1.46	11.8	6.23
BARRACUDA	435.5	3.68	435.5	5.08	0	0	0	0
PARROTFISH	55.4	0.47	0	0	0	0	55.4	29.30
SURGEONFISH AND TANGS	31.9	0.27	0	0	0	0	31.9	16.85
WAHOO	5691.0	48.10	5691.0	66.41	0	0	0	0
KAWAKAWA	112.5	0.95	112.5	1.31	0	0	0	0
SKIPJACK TUNA	1858.3	15.71	1858.3	21.69	0	0	0	0
OCTOPUS	27.7	0.23	0	0	0	0	27.7	14.65
TOTAL ALL SPECIES:	11831.2	100.00	8569.2	72.43	3072.9	25.97	189.0	1.60

Table 9.13

GUAM DAWR DECEMBER 1979
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	234.0	1.74	0	0	234.0	8.92	0	0
JACKS	121.6	0.91	0	0	121.6	4.63	0	0
RAINBOW RUNNER	1017.2	7.58	1017.2	9.42	0	0	0	0
DOLPHINFISH (MAHIMAHI)	2193.7	16.34	2193.7	20.32	0	0	0	0
SNAPPERS	1267.5	9.44	0	0	1267.5	48.31	0	0
UKU (JOBFISH)	182.4	1.36	0	0	182.4	6.95	0	0
ONAGA (RED SNAPPER)	364.7	2.72	0	0	364.7	13.90	0	0
YELLOWTAIL KALIKALI	21.3	0.16	0	0	21.3	0.81	0	0
OPAKAPAKA (PINK SNAP)	60.8	0.45	0	0	60.8	2.32	0	0
YELLOWEYE OPAKAPAKA	72.9	0.54	0	0	72.9	2.78	0	0
GINDAI (FLOWER SNAPPER)	224.9	1.68	0	0	224.9	8.57	0	0
GOATFISH	36.5	0.27	0	0	36.5	1.39	0	0
BUTTERFLYFISH	6.1	0.05	0	0	6.1	0.23	0	0
BARRACUDA	549.7	4.10	549.7	5.09	0	0	0	0
WRASSE	6.1	0.05	0	0	6.1	0.23	0	0
SURGEONFISH AND TANGS	2.6	0.02	0	0	0	0	2.6	100.00
WAHOO	940.2	7.00	940.2	8.71	0	0	0	0
KAWAKAWA	77.1	0.57	77.1	0.71	0	0	0	0
SKIPJACK TUNA	2080.7	15.50	2080.7	19.27	0	0	0	0
YELLOWFIN TUNA	3937.9	29.34	3937.9	36.47	0	0	0	0
FILEFISH	24.9	0.19	0	0	24.9	0.95	0	0
TOTAL ALL SPECIES:	13422.8	100.00	10796.4	80.43	2623.7	19.55	2.6	0.02

Table 10.1

GUAM DAWR JANUARY 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	17730.0	32	2624.7	12	535.9	6	7124.0	4	1461.0	8	3.2	41
BOTTOM FISH	624.6	80	207.2	74	47.2	80	414.4	74	94.3	80	1.3	87
TOTAL:	18354.6	33	2832.0	17	544.6	7	7538.4	4	1476.3	8	3.0	40

Table 10.2

GUAM DAWR FEBRUARY 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	77282.7	11	3519.1	20	652.4	16	8034.3	18	1515.5	13	24.2	19
BOTTOM FISH	382.1	95	226.7	66	30.0	65	320.0	64	43.3	65	1.4	0*
SPEAR SCUBA	0	0	6.7	87	6.7	87	40.0	87	40.0	87	0	0*
TOTAL:	77664.8	11	3752.4	21	637.4	14	8394.3	17	1484.9	12	22.6	22

Table 10.3

GUAM DAWR MARCH 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	58183.8	17	3282.3	21	610.1	17	8796.2	23	1595.8	19	17.1	13
BOTTOM FISH	11207.2	95	259.9	77	51.4	66	575.4	72	125.2	65	27.9	0*
TOTAL:	69391.0	14	3542.2	20	603.7	17	9371.6	22	1583.8	20	21.3	17

* Not enough data to properly compute Coefficent of Variation (CV).

Table 10.4

GUAM DAWR APRIL 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	32897.5	65	2426.9	4	441.8	9	8009.4	20	1407.9	11	10.4	105
BOTTOM FISH	435.6	95	139.9	80	64.0	87	372.4	89	180.3	92	1.9	0*
SPEAR SNORKEL	275.7	79	17.8	79	5.9	79	53.3	79	17.8	79	15.5	0*
TOTAL:	33608.8	65	2584.6	6	477.9	12	8435.1	15	1486.4	7	9.9	102

Table 10.5

GUAM DAWR MAY 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	35839.5	0	2770.3	0	498.5	0	7111.9	0	1282.1	0	12.4	58*
BOTTOM FISH	498.0	0	268.7	0	84.4	0	795.8	0	205.2	0	2.5	10*
SPEAR SCUBA	1734.6	0	164.5	0	52.1	0	610.2	0	174.5	0	12.3	0*
TOTAL:	38072.1	0	3203.5	0	579.6	0	8517.9	0	1520.1	0	11.7	69

Table 10.6

GUAM DAWR JUNE 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	13604.9	46	1891.5	5	459.2	4	5759.3	4	1405.9	3	7.2	56
BOTTOM FISH	270.9	95	169.8	90	42.7	78	428.9	89	111.1	75	.8	0*
SPEAR SNORKEL	1648.2	64	113.7	7	32.0	40	253.6	3	75.7	48	13.7	96*
SPEAR SCUBA	410.9	89	37.3	89	43.9	89	126.8	89	149.1	89	11.0	0*
TOTAL:	15935.0	33	2212.3	7	507.7	8	6568.5	4	1596.7	9	7.9	51

* Not enough data to properly compute Coefficent of Variation (CV).

Table 10.7

GUAM DAWR JULY 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	19642.1	0	2130.6	0	694.7	0	5983.8	0	1066.1	0	13.7	24*
BOTTOM FISH	16481.6	0	2552.1	0	378.2	0	5755.2	0	850.7	0	8.3	0*
SPEAR SNORKEL	0	0	40.6	0	12.5	0	162.5	0	50.0	0	0	0*
SPEAR SCUBA	594.7	0	265.6	0	62.5	0	903.1	0	212.5	0	2.2	0*
TOTAL:	36718.4	0	4988.9	0	1060.5	0	12804.6	0	2004.1	0	7.8	18

Table 10.8

GUAM DAWR AUGUST 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	40134.4	22	3116.7	9	509.9	14	9087.3	16	1502.1	21	12.5	14
BOTTOM FISH	3506.5	74	707.8	81	149.3	67	1912.4	80	414.7	67	7.0	0*
SPEAR SCUBA	290.1	89	72.4	89	26.3	89	217.1	89	78.9	89	4.0	0*
TOTAL:	43930.9	23	3896.9	20	592.8	14	11216.8	23	1768.2	22	11.2	14

Table 10.9

GUAM DAWR SEPTEMBER 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	49911.2	56	2673.9	42	501.3	35	7553.0	40	1431.7	33	18.9	77*
BOTTOM FISH	7609.4	91	573.7	89	101.7	87	1008.5	85	181.1	83	11.2	0*
SPEAR SCUBA	0	0	15.5	95	15.5	95	31.0	95	31.0	95	0	0*
TOTAL:	57520.5	47	3263.1	43	536.4	35	8592.5	37	1527.7	31	19.5	66

* Not enough data to properly compute Coefficent of Variation (CV).

Table 10.10

GUAM DAWR OCTOBER 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	11937.1	95	908.6	95	154.0	95	2544.1	95	431.2	95	13.1	0*
TOTAL:	11937.1	95	908.6	95	154.0	95	2544.1	95	431.2	95	13.1	0

Table 10.11

GUAM DAWR NOVEMBER 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	52565.9	0	3552.4	0	540.4	0	9580.4	0	1446.5	0	14.9	8*
BOTTOM FISH	1281.5	0	240.2	0	96.1	0	480.4	0	192.2	0	5.3	0*
SPEAR SCUBA	381.0	0	111.0	0	31.7	0	222.0	0	63.4	0	3.4	0*
TOTAL:	54228.4	0	3903.6	0	668.2	0	10282.8	0	1746.1	0	14.6	8

Table 10.12

GUAM DAWR DECEMBER 1980
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	37166.9	0	9127.8	0	1160.7	0	26262.3	0	3298.1	0	6.5	62*
BOTTOM FISH	1275.6	0	343.7	0	57.3	0	859.3	0	143.2	0	3.7	0*
TOTAL:	38442.5	0	9471.5	0	1218.0	0	27121.7	0	3443.4	0	6.3	64

* Not enough data to properly compute Coefficent of Variation (CV).

Figure 11.1

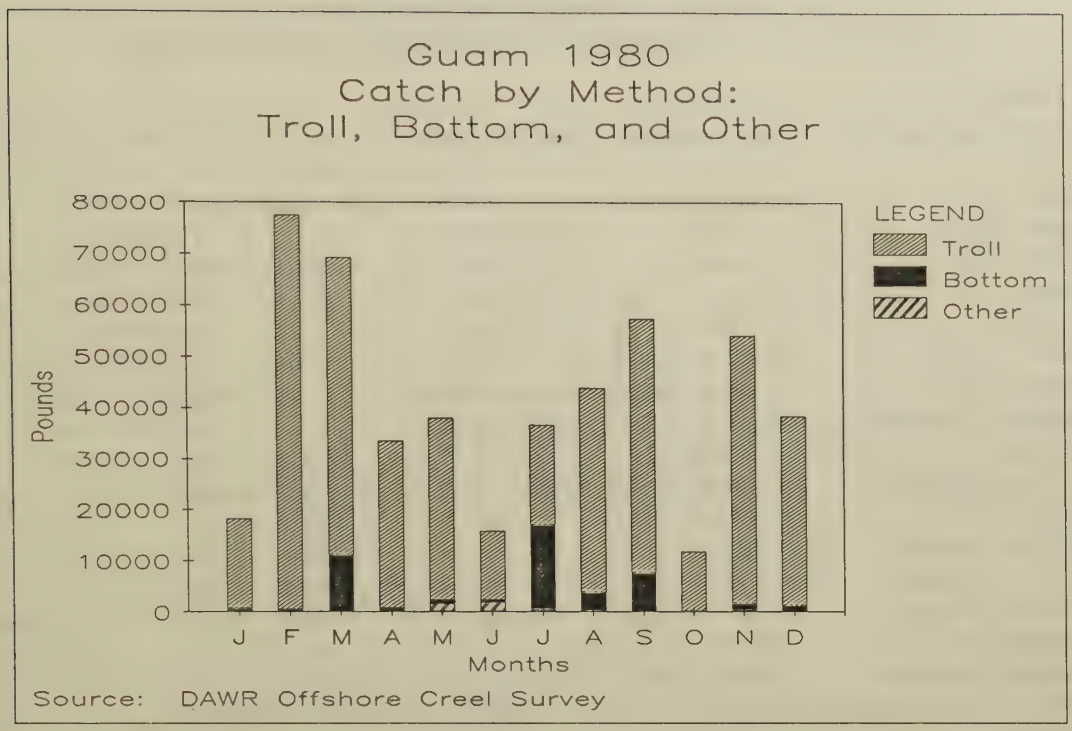


Figure 11.2

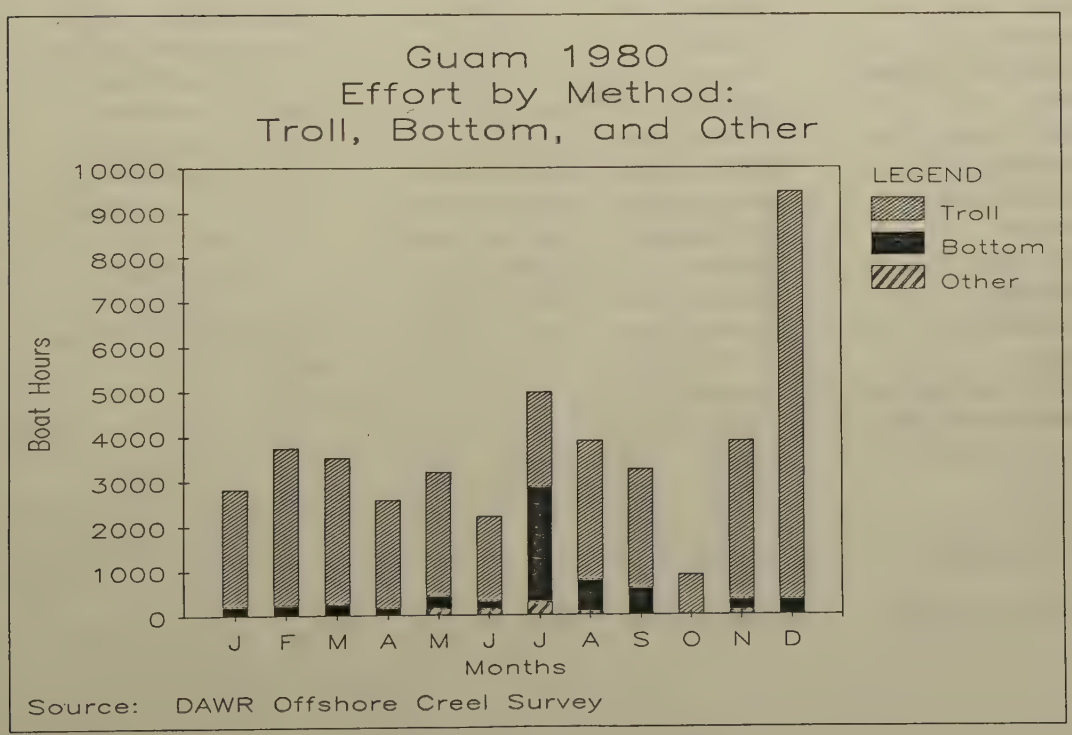


Table 11.1

GUAM DAWR ANNUAL 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	13724.2	2.50	3381.6	0.67	10342.6	27.84	0	0
NEEDLEFISH	21.2	0	21.2	0	0	0	0	0
SQUIRRELFISH	298.1	0.05	0	0	24.4	0.07	273.6	4.60
GROUPER	719.1	0.13	0	0	627.2	1.69	91.9	1.55
FLAGTAILS	12.0	0	0	0	0	0	12.0	0.20
JACKS	2691.8	0.49	54.1	0.01	2590.8	6.97	47.0	0.79
RAINBOW RUNNER	1177.8	0.21	1177.8	0.23	0	0	0	0
DOLPHINFISH (MAHIMAHI)	203135.9	37.02	203135.9	40.18	0	0	0	0
SNAPPERS	626.0	0.11	0	0	614.5	1.65	11.5	0.19
LEHI (SILVERMOUTH)	346.8	0.06	0	0	346.8	0.93	0	0
UKU (JOBFISH)	1362.8	0.25	0	0	1362.8	3.67	0	0
EHU (PINK SNAPPER)	828.0	0.15	0	0	828.0	2.23	0	0
BLUE LINED SNAPPER	80.3	0.01	0	0	80.3	0.22	0	0
YELLOWTAIL KALIKALI	792.7	0.14	0	0	792.7	2.13	0	0
OPAKAPAKA (PINK SNAP)	1491.2	0.27	0	0	1491.2	4.01	0	0
YELLOWEYE OPAKAPAKA	389.4	0.07	0	0	389.4	1.05	0	0
GINDAI (FLOWER SNAPPER)	197.1	0.04	0	0	197.1	0.53	0	0
SWEETLIPS	132.3	0.02	0	0	0	0	132.3	2.23
EMPERORS	10184.4	1.86	0	0	10184.4	27.41	0	0
GOATFISH	406.4	0.07	0	0	286.7	0.77	119.7	2.01
RUDDERFISH	117.9	0.02	0	0	0	0	117.9	1.98
HAWKFISH	9.1	0	0	0	9.1	0.02	0	0
BARRACUDA	2774.1	0.51	2774.1	0.55	0	0	0	0
WRASSE	239.5	0.04	0	0	136.9	0.37	102.6	1.73
PARROTFISH	917.0	0.17	0	0	0	0	917.0	15.43
SURGEONFISH AND TANGS	1822.4	0.33	0	0	0	0	1822.4	30.66
WAHOO	32824.9	5.98	32824.9	6.49	0	0	0	0
DOGTOOTH TUNA	757.5	0.14	757.5	0.15	0	0	0	0
SKIPJACK TUNA	175542.1	31.99	175542.1	34.72	0	0	0	0
YELLOWFIN TUNA	49385.8	9.00	49385.8	9.77	0	0	0	0
SAILFISH	1411.3	0.26	1411.3	0.28	0	0	0	0
BLACK MARLIN	2705.3	0.49	2705.3	0.54	0	0	0	0
BLUE MARLIN	32192.3	5.87	32192.3	6.37	0	0	0	0
TRIGGERFISH	85.2	0.02	0	0	85.2	0.23	0	0
FILEFISH	91.3	0.02	0	0	91.3	0.25	0	0
ASSORTED BOTTOM FISH	6667.9	1.22	0	0	6667.9	17.95	0	0
ASSORTED REEF FISH	115.0	0.02	0	0	0	0	115.0	1.93
UNIDENTIFIED FISH	198.4	0.04	198.4	0.04	0	0	0	0
MOLLUSKS	1946.1	0.35	0	0	0	0	1946.1	32.74
OCTOPUS	192.7	0.04	0	0	0	0	192.7	3.24
SPINY LOBSTERS	43.1	0.01	0	0	0	0	43.1	0.73
TOTAL ALL SPECIES:	548656.3	100.00	505562.3	92.15	37149.2	6.77	5944.8	1.08

Table 11.2

GUAM DAWR JANUARY 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
DOLPHINFISH (MAHIMAHI)	14147.2	77.08	14147.2	79.79	0	0
SNAPPERS	528.5	2.88	0	0	528.5	84.62
UKU (JOBFISH)	80.1	0.44	0	0	80.1	12.82
GOATFISH	16.0	0.09	0	0	16.0	2.56
BARRACUDA	80.5	0.44	80.5	0.45	0	0
WAHOO	820.0	4.47	820.0	4.63	0	0
SKIPJACK TUNA	1111.2	6.05	1111.2	6.27	0	0
YELLOWFIN TUNA	1571.1	8.56	1571.1	8.86	0	0
TOTAL ALL SPECIES:	18354.6	100.00	17730.0	96.60	624.6	3.40

Table 11.3

GUAM DAWR FEBRUARY 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
RAINBOW RUNNER	74.9	0.10	74.9	0.10	0	0
DOLPHINFISH (MAHIMAHI)	70595.7	90.90	70595.7	91.35	0	0
LEHI (SILVERMOUTH)	62.5	0.08	0	0	62.5	16.35
EHU (PINK SNAPPER)	55.1	0.07	0	0	55.1	14.42
YELLOWTAIL KALIKALI	88.6	0.11	0	0	88.6	23.17
OPAKAPAKA (PINK SNAP)	77.2	0.10	0	0	77.2	20.19
GINDAI (FLOWER SNAPPER)	98.8	0.13	0	0	98.8	25.87
BARRACUDA	113.9	0.15	113.9	0.15	0	0
WAHOO	4160.6	5.36	4160.6	5.38	0	0
SKIPJACK TUNA	2213.8	2.85	2213.8	2.86	0	0
YELLOWFIN TUNA	123.7	0.16	123.7	0.16	0	0
TOTAL ALL SPECIES:	77664.8	100.00	77282.7	99.51	382.1	0.49

Table 11.4

GUAM DAWR MARCH 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
SHARKS	10831.3	15.61	0	0	10831.3	96.65
JACKS	12.7	0.02	0	0	12.7	0.11
DOLPHINFISH (MAHIMAHI)	52216.7	75.25	52216.7	89.74	0	0
EHU (PINK SNAPPER)	152.9	0.22	0	0	152.9	1.36
YELLOWTAIL KALIKALI	12.7	0.02	0	0	12.7	0.11
OPAKAPAKA (PINK SNAP)	101.9	0.15	0	0	101.9	0.91
EMPERORS	95.6	0.14	0	0	95.6	0.85
BARRACUDA	206.8	0.30	206.8	0.36	0	0
WAHOO	2260.7	3.26	2260.7	3.89	0	0
SKIPJACK TUNA	2738.0	3.95	2738.0	4.71	0	0
YELLOWFIN TUNA	761.6	1.10	761.6	1.31	0	0
TOTAL ALL SPECIES:	69391.0	100.00	58183.8	83.85	11207.2	16.15

Table 11.5

GUAM DAWR APRIL 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	3972.5	11.82	3972.5	12.08	0	0	0	0
GROUPER	6.5	0.02	0	0	0	0	6.5	2.37
RAINBOW RUNNER	248.9	0.74	248.9	0.76	0	0	0	0
DOLPHINFISH (MAHIMAHI)	15773.4	46.93	15773.4	47.95	0	0	0	0
LEHI (SILVERMOUTH)	333.1	0.99	0	0	333.1	76.47	0	0
EMPERORS	102.5	0.30	0	0	102.5	23.53	0	0
GOATFISH	3.9	0.01	0	0	0	0	3.9	1.42
BARRACUDA	227.8	0.68	227.8	0.69	0	0	0	0
PARROTFISH	61.4	0.18	0	0	0	0	61.4	22.27
SURGEONFISH AND TANGS	203.8	0.61	0	0	0	0	203.8	73.93
WAHOO	275.4	0.82	275.4	0.84	0	0	0	0
DOGTOOTH TUNA	291.3	0.87	291.3	0.89	0	0	0	0
SKIPJACK TUNA	8088.0	24.07	8088.0	24.59	0	0	0	0
YELLOWFIN TUNA	2362.3	7.03	2362.3	7.18	0	0	0	0
SAILFISH	1657.9	4.93	1657.9	5.04	0	0	0	0
TOTAL ALL SPECIES:	33608.8	100.00	32897.5	97.88	435.6	1.30	275.7	0.82

Table 11.6

GUAM DAWR MAY 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	23.1	0.06	0	0	0	0	23.1	1.33
GROUPER	180.5	0.47	0	0	105.3	21.14	75.2	4.33
JACKS	61.9	0.16	0	0	61.9	12.44	0	0
DOLPHINFISH (MAHIMAHI)	1295.0	3.40	1295.0	3.61	0	0	0	0
EHU (PINK SNAPPER)	74.7	0.20	0	0	74.7	15.01	0	0
BLUE LINED SNAPPER	38.0	0.10	0	0	38.0	7.63	0	0
YELLOWTAIL KALIKALI	17.3	0.05	0	0	17.3	3.48	0	0
OPAKAPAKA (PINK SNAP)	58.2	0.15	0	0	58.2	11.69	0	0
GINDAI (FLOWER SNAPPER)	22.7	0.06	0	0	22.7	4.56	0	0
SWEETLIPS	37.6	0.10	0	0	0	0	37.6	2.17
EMPERORS	119.8	0.31	0	0	119.8	24.05	0	0
GOATFISH	130.1	0.34	0	0	0	0	130.1	7.50
RUDDERFISH	57.8	0.15	0	0	0	0	57.8	3.33
BARRACUDA	234.7	0.62	234.7	0.65	0	0	0	0
PARROTFISH	309.3	0.81	0	0	0	0	309.3	17.83
SURGEONFISH AND TANGS	965.6	2.54	0	0	0	0	965.6	55.67
WAHOO	1295.0	3.40	1295.0	3.61	0	0	0	0
SKIPJACK TUNA	26175.5	68.75	26175.5	73.04	0	0	0	0
YELLOWFIN TUNA	6839.3	17.96	6839.3	19.08	0	0	0	0
OCTOPUS	92.5	0.24	0	0	0	0	92.5	5.33
SPINY LOBSTERS	43.4	0.11	0	0	0	0	43.4	2.50
TOTAL ALL SPECIES:	38072.1	100.00	35839.5	94.14	498.0	1.31	1734.6	4.56

Table 11.7

GUAM DAWR JUNE 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	72.4	0.45	0	0	9.5	3.50	62.9	3.06
GROUPER	71.9	0.45	0	0	67.8	25.03	4.1	0.20
FLAGTAILS	4.0	0.03	0	0	0	0	4.0	0.20
JACKS	12.1	0.08	0	0	0	0	12.1	0.59
DOLPHINFISH (MAHIMAHI)	502.9	3.16	502.9	3.70	0	0	0	0
SNAPPERS	7.6	0.05	0	0	0	0	7.6	0.37
SWEETLIPS	62.7	0.39	0	0	0	0	62.7	3.04
EMPERORS	148.1	0.93	0	0	148.1	54.65	0	0
GOATFISH	4.0	0.03	0	0	0	0	4.0	0.20
RUDDERFISH	11.4	0.07	0	0	0	0	11.4	0.55
BARRACUDA	535.0	3.36	535.0	3.93	0	0	0	0
WRASSE	68.6	0.43	0	0	0	0	68.6	3.33
PARROTFISH	121.6	0.76	0	0	0	0	121.6	5.90
SURGEONFISH AND TANGS	76.4	0.48	0	0	0	0	76.4	3.71
WAHOO	2198.8	13.80	2198.8	16.16	0	0	0	0
SKIPJACK TUNA	5938.4	37.27	5938.4	43.65	0	0	0	0
YELLOWFIN TUNA	952.3	5.98	952.3	7.00	0	0	0	0
BLUE MARLIN	3477.5	21.82	3477.5	25.56	0	0	0	0
TRIGGERFISH	45.6	0.29	0	0	45.6	16.82	0	0
MOLLUSKS	1595.4	10.01	0	0	0	0	1595.4	77.48
OCTOPUS	28.5	0.18	0	0	0	0	28.5	1.38
TOTAL ALL SPECIES:	15935.0	100.00	13604.9	85.38	270.9	1.70	2059.2	12.92

Table 11.8

GUAM DAWR JULY 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	139.4	0.38	0	0	0	0	139.4	23.44
GROUPER	276.9	0.75	0	0	273.3	1.66	3.6	0.61
FLAGTAILS	7.0	0.02	0	0	0	0	7.0	1.17
JACKS	3805.1	10.36	0	0	3805.1	23.09	0	0
RAINBOW RUNNER	1.0	0	1.0	0.01	0	0	0	0
DOLPHINFISH (MAHIMAHI)	86.6	0.24	86.6	0.44	0	0	0	0
UKU (JOBFISH)	1419.0	3.86	0	0	1419.0	8.61	0	0
EHU (PINK SNAPPER)	546.6	1.49	0	0	546.6	3.32	0	0
OPAKAPAKA (PINK SNAP)	94.6	0.26	0	0	94.6	0.57	0	0
YELLOWEYE OPAKAPAKA	252.3	0.69	0	0	252.3	1.53	0	0
EMPERORS	9302.4	25.33	0	0	9302.4	56.44	0	0
BARRACUDA	7.9	0.02	7.9	0.04	0	0	0	0
PARROTFISH	29.3	0.08	0	0	0	0	29.3	4.92
SURGEONFISH AND TANGS	248.1	0.68	0	0	0	0	248.1	41.73
WAHOO	377.0	1.03	377.0	1.92	0	0	0	0
SKIPJACK TUNA	2909.8	7.92	2909.8	14.81	0	0	0	0
YELLOWFIN TUNA	1412.0	3.85	1412.0	7.19	0	0	0	0
BLUE MARLIN	14543.2	39.61	14543.2	74.04	0	0	0	0
FILEFISH	157.7	0.43	0	0	157.7	0.96	0	0
ASSORTED BOTTOM FISH	630.7	1.72	0	0	630.7	3.83	0	0
ASSORTED REEF FISH	111.5	0.30	0	0	0	0	111.5	18.75
UNIDENTIFIED FISH	304.6	0.83	304.6	1.55	0	0	0	0
OCTOPUS	55.8	0.15	0	0	0	0	55.8	9.38
TOTAL ALL SPECIES:	36718.4	100.00	19642.1	53.49	16481.6	44.89	594.7	1.62

Table 11.9

GUAM DAWR AUGUST 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	42.2	0.10	0	0	42.2	1.20	0	0
JACKS	253.5	0.58	0	0	253.5	7.23	0	0
RAINBOW RUNNER	231.2	0.53	231.2	0.58	0	0	0	0
DOLPHINFISH (MAHIMAHI)	333.1	0.76	333.1	0.83	0	0	0	0
LEHI (SILVERMOUTH)	59.1	0.13	0	0	59.1	1.69	0	0
UKU (JOBFISH)	190.1	0.43	0	0	190.1	5.42	0	0
BLUE LINED SNAPPER	12.7	0.03	0	0	12.7	0.36	0	0
EMPERORS	2733.4	6.22	0	0	2733.4	77.95	0	0
GOATFISH	63.4	0.14	0	0	63.4	1.81	0	0
BARRACUDA	254.7	0.58	254.7	0.63	0	0	0	0
WRASSE	84.5	0.19	0	0	84.5	2.41	0	0
PARROTFISH	174.0	0.40	0	0	0	0	174.0	60.00
SURGEONFISH AND TANGS	116.0	0.26	0	0	0	0	116.0	40.00
WAHOO	1735.9	3.95	1735.9	4.33	0	0	0	0
SKIPJACK TUNA	25341.6	57.69	25341.6	63.14	0	0	0	0
YELLOWFIN TUNA	6124.8	13.94	6124.8	15.26	0	0	0	0
BLUE MARLIN	6113.0	13.92	6113.0	15.23	0	0	0	0
ASSORTED BOTTOM FISH	67.6	0.15	0	0	67.6	1.93	0	0
TOTAL ALL SPECIES:	43930.9	100.00	40134.4	91.36	3506.5	7.98	290.1	0.66

Table 11.10

GUAM DAWR SEPTEMBER 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
GROUPER	30.6	0.05	0	0	30.6	0.40
JACKS	31.4	0.05	31.4	0.06	0	0
RAINBOW RUNNER	235.8	0.41	235.8	0.47	0	0
DOLPHINFISH (MAHIMAHI)	414.0	0.72	414.0	0.83	0	0
UKU (JOBFISH)	91.8	0.16	0	0	91.8	1.21
BLUE LINED SNAPPER	6.1	0.01	0	0	6.1	0.08
YELLOWTAIL KALIKALI	611.7	1.06	0	0	611.7	8.04
OPAKAPAKA (PINK SNAP)	128.5	0.22	0	0	128.5	1.69
YELLOWEYE OPAKAPAKA	244.7	0.43	0	0	244.7	3.22
EMPERORS	256.9	0.45	0	0	256.9	3.38
BARRACUDA	141.5	0.25	141.5	0.28	0	0
WAHOO	1928.4	3.35	1928.4	3.86	0	0
SKIPJACK TUNA	31423.9	54.63	31423.9	62.96	0	0
YELLOWFIN TUNA	9972.0	17.34	9972.0	19.98	0	0
BLUE MARLIN	5764.2	10.02	5764.2	11.55	0	0
ASSORTED BOTTOM FISH	6239.2	10.85	0	0	6239.2	81.99
TOTAL ALL SPECIES:	57520.5	100.00	49911.2	86.77	7609.4	13.23

Table 11.11

GUAM DAWR NOVEMBER 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
NEEDLEFISH	25.9	0.05	25.9	0.05	0	0	0	0
SQUIRRELFISH	70.3	0.13	0	0	42.4	3.31	28.0	7.34
GROUPER	360.1	0.66	0	0	360.1	28.10	0	0
DOLPHINFISH (MAHIMAHI)	1447.4	2.67	1447.4	2.75	0	0	0	0
SNAPPERS	42.4	0.08	0	0	42.4	3.31	0	0
UKU (JOBFISH)	296.6	0.55	0	0	296.6	23.14	0	0
EMPERORS	190.6	0.35	0	0	190.6	14.88	0	0
GOATFISH	264.8	0.49	0	0	264.8	20.66	0	0
RUDDERFISH	104.9	0.19	0	0	0	0	104.9	27.52
HAWKFISH	31.8	0.06	0	0	31.8	2.48	0	0
BARRACUDA	316.4	0.58	316.4	0.60	0	0	0	0
WRASSE	53.0	0.10	0	0	53.0	4.13	0	0
PARROTFISH	248.2	0.46	0	0	0	0	248.2	65.14
WAHOO	9085.9	16.75	9085.9	17.28	0	0	0	0
DOGTOOTH TUNA	346.7	0.64	346.7	0.66	0	0	0	0
SKIPJACK TUNA	38591.9	71.17	38591.9	73.42	0	0	0	0
YELLOWFIN TUNA	2751.7	5.07	2751.7	5.23	0	0	0	0
TOTAL ALL SPECIES:	54228.4	100.00	52565.9	96.93	1281.5	2.36	381.0	0.70

Table 11.12

GUAM DAWR DECEMBER 1980
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
RAINBOW RUNNER	278.2	0.72	278.2	0.75	0	0
DOLPHINFISH (MAHIMAHI)	4021.1	10.46	4021.1	10.82	0	0
EHU (PINK SNAPPER)	170.5	0.44	0	0	170.5	13.37
OPAKAPAKA (PINK SNAP)	1035.7	2.69	0	0	1035.7	81.19
GOATFISH	56.8	0.15	0	0	56.8	4.46
BARRACUDA	198.7	0.52	198.7	0.53	0	0
WAHOO	9324.0	24.25	9324.0	25.09	0	0
SKIPJACK TUNA	14302.3	37.20	14302.3	38.48	0	0
YELLOWFIN TUNA	5597.7	14.56	5597.7	15.06	0	0
BLUE MARLIN	3444.7	8.96	3444.7	9.27	0	0
TRIGGERFISH	12.6	0.03	0	0	12.6	0.99
TOTAL ALL SPECIES:	38442.5	100.00	37166.9	96.68	1275.6	3.32

Table 12.1

GUAM DAWR MARCH 1981
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	24548.3	0	4093.9	0	633.6	0	11856.2	0	1875.0	0	9.8	29*
BOTTOM FISH	0	0	75.0	0	18.8	0	75.0	0	18.8	0	0	0*
SPEAR SCUBA	0	0	29.2	0	29.2	0	116.7	0	116.7	0	0	0*
TOTAL:	24548.3	0	4198.1	0	657.4	0	12047.9	0	1973.1	0	9.0	30

Table 12.2

GUAM DAWR APRIL 1981
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	39768.3	0	3563.2	0	594.0	0	9976.7	0	1669.0	0	14.1	37*
BOTTOM FISH	134.5	0	55.5	0	55.5	0	166.4	0	166.4	0	2.4	0*
TOTAL:	39902.8	0	3618.7	0	617.1	0	10143.1	0	1738.3	0	13.9	34

Table 12.3

GUAM DAWR MAY 1981
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	24512.1	48	2819.0	29	472.5	30	8353.6	29	1403.5	31	7.9	72*
BOTTOM FISH	6134.6	25	893.1	16	184.1	21	2480.3	22	461.4	10	7.5	16
SPEAR SNORKEL	1233.1	90	97.9	90	18.6	90	440.5	90	83.9	90	12.6	0*
TOTAL:	31879.7	38	3809.9	24	602.6	10	11274.4	25	1741.5	15	9.0	20

Table 12.4

GUAM DAWR JUNE 1981
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	33448.6	23	2602.5	14	477.6	9	7151.5	14	1329.6	10	13.2	18
BOTTOM FISH	3652.5	27	987.4	23	188.7	25	2246.4	23	452.4	28	3.7	33
SPEAR SNORKEL	153.2	90	30.9	90	7.7	90	92.6	90	23.2	90	5.0	0*
SPEAR SCUBA	1255.6	64	136.4	53	32.3	49	379.6	56	80.8	49	8.3	52*
TOTAL:	38509.9	19	3757.2	11	548.1	5	9870.1	8	1493.4	9	9.9	18

* Not enough data to properly compute Coefficient of Variation (CV).

Table 12.5

GUAM DAWR JULY 1981
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	40557.8	0	3268.3	0	999.9	0	9809.7	0	1357.6	0	14.3	42*
BOTTOM FISH	4959.2	0	606.9	0	138.5	0	1530.6	0	359.3	0	7.1	49*
SPEAR SNORKEL	481.8	0	152.7	0	99.8	0	458.1	0	299.4	0	5.1	0*
SPEAR SCUBA	205.8	0	19.4	0	7.8	0	116.7	0	46.7	0	10.6	0*
TOTAL:	46204.6	0	4047.4	0	1161.4	0	11915.1	0	1760.2	0	13.7	38

Table 12.6

GUAM DAWR AUGUST 1981
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	43092.1	21	3354.8	13	634.9	24	7850.1	11	1497.4	23	14.4	28
BOTTOM FISH	8946.5	73	1018.0	60	191.6	45	2688.0	61	496.8	48	7.1	10*
ATULAI JIG	120.4	95	78.8	95	21.0	95	157.5	95	42.0	95	1.5	0*
TOTAL:	52159.0	6	4451.5	24	713.3	28	10695.6	24	1644.0	25	13.9	28

Table 12.7

GUAM DAWR SEPTEMBER 1981
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	24243.6	0	2635.4	0	454.7	0	6310.8	0	1117.5	0	11.3	82*
BOTTOM FISH	9229.3	0	349.3	0	209.2	0	889.4	0	469.2	0	21.9	36*
ATULAI JIG	72.4	0	56.6	0	17.0	0	150.6	0	43.4	0	1.0	141*
SPEAR SCUBA	108.7	0	28.1	0	9.4	0	28.1	0	9.4	0	3.9	0*
TOTAL:	33654.1	0	3069.4	0	508.5	0	7378.9	0	1213.8	0	11.3	81

* Not enough data to properly compute Coefficient of Variation (CV).

Table 12.8

GUAM DAWR OCTOBER 1981
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	15102.9	0	1616.8	0	411.8	0	4638.5	0	1183.6	0	8.6	4*
BOTTOM FISH	931.9	0	648.7	0	217.9	0	1927.8	0	648.0	0	1.2	81*
TOTAL:	16034.7	0	2265.5	0	567.4	0	6566.3	0	1634.7	0	7.3	10

Table 12.9

GUAM DAWR NOVEMBER 1981
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	114584.9	0	4895.3	0	867.7	0	14619.2	0	2603.2	0	18.5	52*
BOTTOM FISH	15210.7	0	1327.9	0	317.9	0	4321.3	0	981.3	0	10.9	81*
SPEAR SCUBA	202.8	0	55.6	0	9.3	0	111.1	0	18.5	0	3.7	0*
TOTAL:	129998.3	0	6278.8	0	1048.8	0	19051.5	0	3143.6	0	17.2	50

Table 12.10

GUAM DAWR DECEMBER 1981
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	25232.2	0	2493.8	0	372.1	0	5898.7	0	897.8	0	10.0	13*
BOTTOM FISH	148.3	0	120.7	0	52.1	0	247.4	0	115.4	0	1.5	47*
TOTAL:	25380.4	0	2614.5	0	388.1	0	6146.1	0	939.7	0	9.5	15

* Not enough data to properly compute Coefficient of Variation (CV).

Figure 12.1

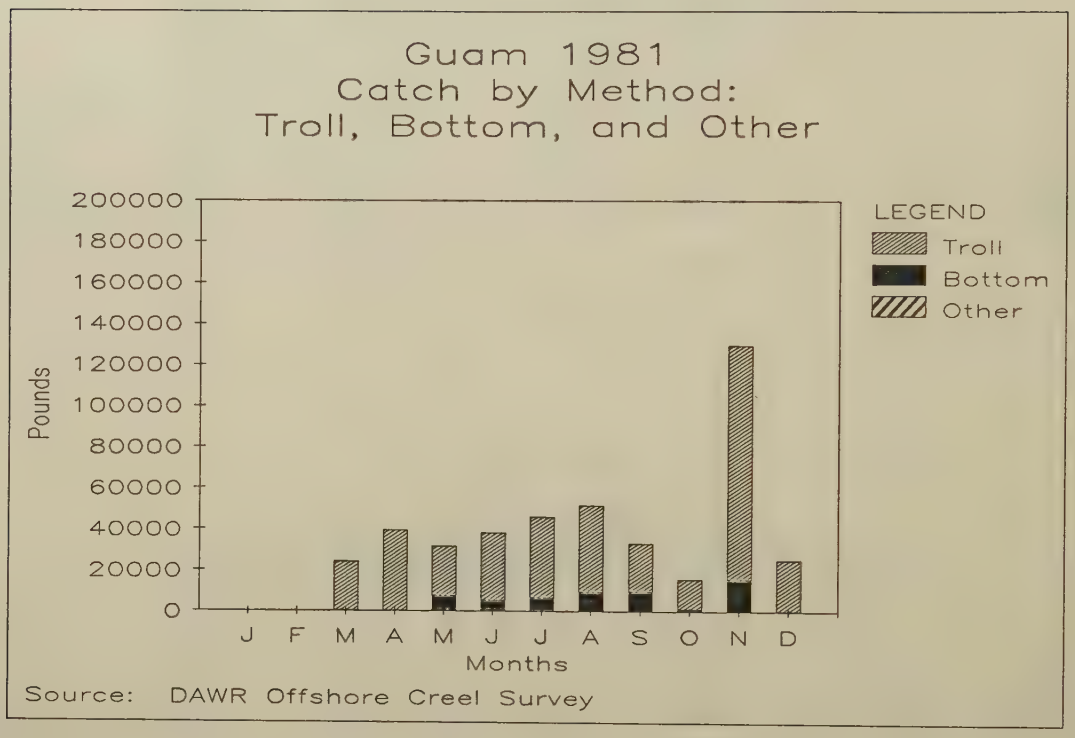


Figure 12.2

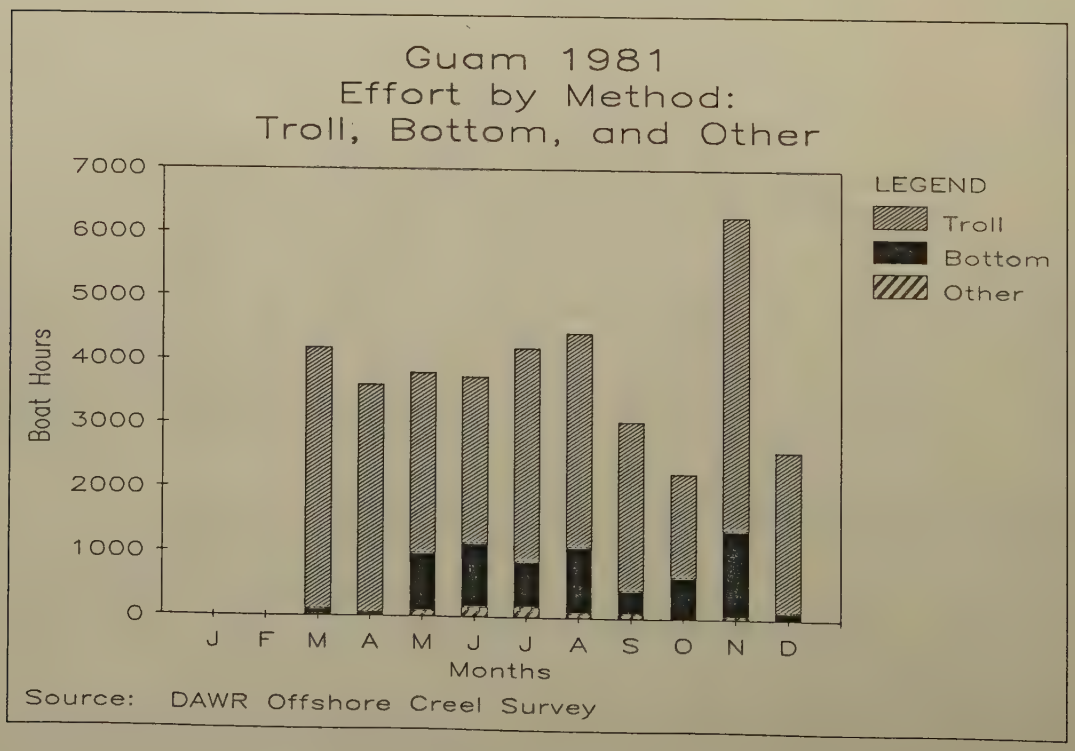


Table 13.1

GUAM DAWR ANNUAL 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	1454.8	0.28	0	0	1454.8	2.36	0	0
MORAY EELS	268.3	0.05	0	0	16.1	0.03	252.2	3.93
NEEDLEFISH	46.3	0.01	46.3	0.01	0	0	0	0
SQUIRRELFISH	142.0	0.03	0	0	100.0	0.16	42.0	0.66
SCORPIONFISH	392.8	0.08	0	0	392.8	0.64	0	0
GROUPER	6617.8	1.28	0	0	6442.3	10.45	175.5	2.74
BIGEYES	7.4	0	0	0	0	0	7.4	0.12
FALSE WHITING	24.1	0	0	0	24.1	0.04	0	0
JACKS	4580.8	0.89	499.1	0.11	3886.5	6.31	195.2	3.04
RAINBOW RUNNER	8200.6	1.59	8200.6	1.83	0	0	0	0
BIGEYE SCAD (AKULE)	50.4	0.01	0	0	0	0	50.4	0.79
DOLPHINFISH (MAHIMAHI)	27954.1	5.42	27954.1	6.25	0	0	0	0
SNAPPERS	2256.3	0.44	166.9	0.04	2027.6	3.29	61.8	0.96
LEHI (SILVERMOUTH)	2458.8	0.48	14.8	0	2444.1	3.97	0	0
UKU (JOBFISH)	1560.6	0.30	4.0	0	1556.6	2.53	0	0
EHU (PINK SNAPPER)	4844.8	0.94	0	0	4844.8	7.86	0	0
ONAGA (RED SNAPPER)	4095.3	0.79	0	0	4095.3	6.64	0	0
BLUE LINED SNAPPER	486.0	0.09	0	0	486.0	0.79	0	0
YELLOWTAIL KALIKALI	2768.0	0.54	0	0	2768.0	4.49	0	0
OPAKAPAKA (PINK SNAP)	698.3	0.14	0	0	698.3	1.13	0	0
YELLOWEYE OPAKAPAKA	2352.8	0.46	0	0	2352.8	3.82	0	0
KALIKALI (PINK SNAPPER)	16.7	0	0	0	16.7	0.03	0	0
GINDAI (FLOWER SNAPPER)	1558.1	0.30	0	0	1558.1	2.53	0	0
FUSILIER	11.4	0	0	0	0	0	11.4	0.18
BREAM	22.8	0	0	0	22.8	0.04	0	0
SWEETLIPS	57.1	0.01	0	0	0	0	57.1	0.89
EMPERORS	11342.0	2.20	0	0	11320.6	18.37	21.4	0.33
GOATFISH	258.8	0.05	0	0	231.1	0.37	27.7	0.43
SWEEPERS	14.6	0	0	0	7.5	0.01	7.1	0.11
RUDDERFISH	190.2	0.04	0	0	0	0	190.2	2.97
DAMSELFISHES	15.6	0	0	0	0	0	15.6	0.24
BARRACUDA	3841.1	0.75	3841.1	0.86	0	0	0	0
WRASSE	825.9	0.16	0	0	693.1	1.12	132.8	2.07
PARROTFISH	1082.8	0.21	0	0	0	0	1082.8	16.89
SURGEONFISH AND TANGS	2309.2	0.45	0	0	351.9	0.57	1957.3	30.53
OILFISH	130.9	0.03	0	0	130.9	0.21	0	0
TUNAS	399.4	0.08	399.4	0.09	0	0	0	0
WAHOO	82635.2	16.03	82635.2	18.47	0	0	0	0
KAWAKAWA	543.5	0.11	543.5	0.12	0	0	0	0
DOGTOOTH TUNA	12894.2	2.50	10310.4	2.30	2583.8	4.19	0	0
SKIPJACK TUNA	158493.2	30.74	158493.2	35.42	0	0	0	0
YELLOWFIN TUNA	107828.0	20.91	107828.0	24.10	0	0	0	0
SAILFISH	1272.0	0.25	1272.0	0.28	0	0	0	0

Table 13.1 (cont.)

GUAM DAWR ANNUAL 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
BLACK MARLIN	4908.8	0.95	4908.8	1.10	0	0	0	0
BLUE MARLIN	40388.5	7.83	40388.5	9.03	0	0	0	0
TRIGGERFISH	919.5	0.18	0	0	919.5	1.49	0	0
FILEFISH	31.2	0.01	0	0	0	0	31.2	0.49
TRIPLETOOTH PUFFERS	58.2	0.01	0	0	58.2	0.09	0	0
ASSORTED BOTTOM FISH	10154.5	1.97	0	0	10154.5	16.47	0	0
ASSORTED REEF FISH	1768.9	0.34	0	0	0	0	1768.9	27.60
SPINY LOBSTERS	322.1	0.06	0	0	0	0	322.1	5.03
TOTAL ALL SPECIES:	515554.9	100.00	447505.8	86.80	61639.0	11.96	6410.1	1.24

Table 13.2

GUAM DAWR MARCH 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR
DOLPHINFISH (MAHIMAHI)	14373.1	58.55	14373.1	58.55
BARRACUDA	341.5	1.39	341.5	1.39
WAHOO	7848.0	31.97	7848.0	31.97
SKIPJACK TUNA	455.3	1.85	455.3	1.85
YELLOWFIN TUNA	1530.4	6.23	1530.4	6.23
TOTAL ALL SPECIES:	24548.3	100.00	24548.3	100.00

Table 13.3

GUAM DAWR APRIL 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
RAINBOW RUNNER	324.6	0.81	324.6	0.82	0	0
DOLPHINFISH (MAHIMAHI)	684.7	1.72	684.7	1.72	0	0
SKIPJACK TUNA	25206.3	63.17	25206.3	63.38	0	0
YELLOWFIN TUNA	13552.6	33.96	13552.6	34.08	0	0
ASSORTED BOTTOM FISH	134.5	0.34	0	0	134.5	100.00
TOTAL ALL SPECIES:	39902.8	100.00	39768.3	99.66	134.5	0.34

Table 13.4

GUAM DAWR MAY 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SCORPIONFISH	120.9	0.38	0	0	120.9	1.97	0	0
GROUPER	272.0	0.85	0	0	272.0	4.43	0	0
JACKS	1288.1	4.04	154.8	0.63	1133.2	18.47	0	0
RAINBOW RUNNER	256.9	0.81	256.9	1.05	0	0	0	0
DOLPHINFISH (MAHIMAHI)	793.9	2.49	793.9	3.24	0	0	0	0
SNAPPERS	151.1	0.47	0	0	151.1	2.46	0	0
LEHI (SILVERMOUTH)	22.7	0.07	0	0	22.7	0.37	0	0
EHU (PINK SNAPPER)	2402.5	7.54	0	0	2402.5	39.16	0	0
ONAGA (RED SNAPPER)	226.6	0.71	0	0	226.6	3.69	0	0
BLUE LINED SNAPPER	60.4	0.19	0	0	60.4	0.99	0	0
GINDAI (FLOWER SNAPPER)	45.3	0.14	0	0	45.3	0.74	0	0
EMPERORS	1473.2	4.62	0	0	1473.2	24.01	0	0
BARRACUDA	181.2	0.57	181.2	0.74	0	0	0	0
SURGEONFISH AND TANGS	151.1	0.47	0	0	151.1	2.46	0	0
TUNAS	19.8	0.06	19.8	0.08	0	0	0	0
WAHOO	2345.5	7.36	2345.5	9.57	0	0	0	0
SKIPJACK TUNA	10212.0	32.03	10212.0	41.66	0	0	0	0
YELLOWFIN TUNA	8571.5	26.89	8571.5	34.97	0	0	0	0
BLUE MARLIN	1976.5	6.20	1976.5	8.06	0	0	0	0
TRIGGERFISH	30.2	0.09	0	0	30.2	0.49	0	0
ASSORTED BOTTOM FISH	45.3	0.14	0	0	45.3	0.74	0	0
ASSORTED REEF FISH	1233.1	3.87	0	0	0	0	1233.1	100.00
TOTAL ALL SPECIES:	31879.7	100.00	24512.1	76.89	6134.6	19.24	1233.1	3.87

Table 13.5

GUAM DAWR JUNE 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	367.7	0.95	0	0	367.7	10.07	0	0
MORAY EELS	92.2	0.24	0	0	0	0	92.2	6.55
SQUIRRELFISH	21.1	0.05	0	0	9.2	0.25	11.9	0.84
GROUPER	215.2	0.56	0	0	197.4	5.40	17.8	1.26
FALSE WHITING	6.1	0.02	0	0	6.1	0.17	0	0
JACKS	385.6	1.00	0	0	385.6	10.56	0	0
RAINBOW RUNNER	1232.2	3.20	1232.2	3.68	0	0	0	0
DOLPHINFISH (MAHIMAHI)	811.4	2.11	811.4	2.43	0	0	0	0
SNAPPERS	395.6	1.03	0	0	395.6	10.83	0	0
UKU (JOBFISH)	252.8	0.66	0	0	252.8	6.92	0	0
EHU (PINK SNAPPER)	57.3	0.15	0	0	57.3	1.57	0	0
ONAGA (RED SNAPPER)	68.0	0.18	0	0	68.0	1.86	0	0
BLUE LINED SNAPPER	52.7	0.14	0	0	52.7	1.44	0	0
YELLOWTAIL KALIKALI	54.4	0.14	0	0	54.4	1.49	0	0
OPAKAPAKA (PINK SNAP)	33.1	0.09	0	0	33.1	0.91	0	0
YELLOWEYE OPAKAPAKA	33.6	0.09	0	0	33.6	0.92	0	0
GINDAI (FLOWER SNAPPER)	64.6	0.17	0	0	64.6	1.77	0	0
BREAM	5.8	0.01	0	0	5.8	0.16	0	0
SWEETLIPS	20.9	0.05	0	0	0	0	20.9	1.48
EMPERORS	565.1	1.47	0	0	565.1	15.47	0	0
GOATFISH	23.2	0.06	0	0	13.8	0.38	9.4	0.67
SWEEPERS	1.9	0	0	0	1.9	0.05	0	0
DAMSELFISHES	5.7	0.01	0	0	0	0	5.7	0.40
BARRACUDA	199.1	0.52	199.1	0.60	0	0	0	0
WRASSE	129.8	0.34	0	0	101.1	2.77	28.7	2.04
PARROTFISH	415.7	1.08	0	0	0	0	415.7	29.51
SURGEONFISH AND TANGS	720.8	1.87	0	0	43.6	1.19	677.2	48.07
WAHOO	1757.5	4.56	1757.5	5.25	0	0	0	0
KAWAKAWA	68.0	0.18	68.0	0.20	0	0	0	0
DOGTOOTH TUNA	4679.5	12.15	4131.4	12.35	548.1	15.01	0	0
SKIPJACK TUNA	11831.5	30.72	11831.5	35.37	0	0	0	0
YELLOWFIN TUNA	10903.0	28.31	10903.0	32.60	0	0	0	0
SAILFISH	554.3	1.44	554.3	1.66	0	0	0	0
BLUE MARLIN	1960.4	5.09	1960.4	5.86	0	0	0	0
TRIGGERFISH	110.0	0.29	0	0	110.0	3.01	0	0
FILEFISH	11.4	0.03	0	0	0	0	11.4	0.81
ASSORTED BOTTOM FISH	285.0	0.74	0	0	285.0	7.80	0	0
SPINY LOBSTERS	117.8	0.31	0	0	0	0	117.8	8.36
TOTAL ALL SPECIES:	38509.9	100.00	33448.6	86.86	3652.5	9.48	1408.7	3.66

Table 13.6

GUAM DAWR JULY 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	3.1	0.01	0	0	3.1	0.06	0	0
GROUPER	148.2	0.32	0	0	142.2	2.87	6.0	0.87
JACKS	182.0	0.39	9.1	0.02	172.9	3.49	0	0
RAINBOW RUNNER	836.7	1.81	836.7	2.06	0	0	0	0
DOLPHINFISH (MAHIMAHI)	469.2	1.02	469.2	1.16	0	0	0	0
SNAPPERS	10.8	0.02	0	0	10.8	0.22	0	0
LEHI (SILVERMOUTH)	14.8	0.03	14.8	0.04	0	0	0	0
UKU (JOBFISH)	4.0	0.01	4.0	0.01	0	0	0	0
EHU (PINK SNAPPER)	220.9	0.48	0	0	220.9	4.45	0	0
BLUE LINED SNAPPER	9.7	0.02	0	0	9.7	0.20	0	0
YELLOWTAIL KALIKALI	184.1	0.40	0	0	184.1	3.71	0	0
YELLOWEYE OPAKAPAKA	42.0	0.09	0	0	42.0	0.85	0	0
GINDAI (FLOWER SNAPPER)	131.4	0.28	0	0	131.4	2.65	0	0
EMPERORS	798.6	1.73	0	0	798.6	16.10	0	0
GOATFISH	47.8	0.10	0	0	47.8	0.96	0	0
RUDDERFISH	83.4	0.18	0	0	0	0	83.4	12.13
BARRACUDA	169.1	0.37	169.1	0.42	0	0	0	0
WRASSE	53.6	0.12	0	0	26.8	0.54	26.8	3.90
PARROTFISH	14.2	0.03	0	0	0	0	14.2	2.06
SURGEONFISH AND TANGS	30.5	0.07	0	0	30.5	0.62	0	0
TUNAS	75.6	0.16	75.6	0.19	0	0	0	0
WAHOO	1117.3	2.42	1117.3	2.75	0	0	0	0
DOGTOOTH TUNA	412.4	0.89	284.7	0.70	127.6	2.57	0	0
SKIPJACK TUNA	11651.7	25.22	11651.7	28.73	0	0	0	0
YELLOWFIN TUNA	17517.6	37.91	17517.6	43.19	0	0	0	0
BLUE MARLIN	8407.9	18.20	8407.9	20.73	0	0	0	0
TRIGGERFISH	81.9	0.18	0	0	81.9	1.65	0	0
ASSORTED BOTTOM FISH	2928.9	6.34	0	0	2928.9	59.06	0	0
ASSORTED REEF FISH	557.3	1.21	0	0	0	0	557.3	81.05
TOTAL ALL SPECIES:	46204.6	100.00	40557.8	87.78	4959.2	10.73	687.6	1.49

Table 13.7

GUAM DAWR AUGUST 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	61.7	0.12	0	0	61.7	0.69	0	0
GROUPER	2644.9	5.07	0	0	2644.9	29.56	0	0
JACKS	253.0	0.49	234.8	0.54	18.2	0.20	0	0
RAINBOW RUNNER	724.2	1.39	724.2	1.68	0	0	0	0
BIGEYE SCAD (AKULE)	120.4	0.23	0	0	0	0	120.4	100.00
DOLPHINFISH (MAHIMAHI)	206.9	0.40	206.9	0.48	0	0	0	0
SNAPPERS	48.6	0.09	48.6	0.11	0	0	0	0
UKU (JOBFISH)	320.1	0.61	0	0	320.1	3.58	0	0
BLUE LINED SNAPPER	77.2	0.15	0	0	77.2	0.86	0	0
EMPERORS	3073.6	5.89	0	0	3073.6	34.35	0	0
BARRACUDA	272.3	0.52	272.3	0.63	0	0	0	0
WRASSE	64.8	0.12	0	0	64.8	0.72	0	0
SURGEONFISH AND TANGS	41.1	0.08	0	0	41.1	0.46	0	0
WAHOO	1508.3	2.89	1508.3	3.50	0	0	0	0
SKIPJACK TUNA	10840.2	20.78	10840.2	25.16	0	0	0	0
YELLOWFIN TUNA	14446.0	27.70	14446.0	33.52	0	0	0	0
BLUE MARLIN	14810.8	28.40	14810.8	34.37	0	0	0	0
TRIGGERFISH	115.5	0.22	0	0	115.5	1.29	0	0
ASSORTED BOTTOM FISH	2529.5	4.85	0	0	2529.5	28.27	0	0
TOTAL ALL SPECIES:	52159.0	100.00	43092.1	82.62	8946.5	17.15	120.4	0.23

Table 13.8

GUAM DAWR SEPTEMBER 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
MORAY EELS	15.9	0.05	0	0	15.9	0.17	0	0
SQUIRRELFISH	4.2	0.01	0	0	0	0	4.2	2.30
SCORPIONFISH	308.7	0.92	0	0	308.7	3.35	0	0
GROUPER	2334.8	6.94	0	0	2319.1	25.13	15.7	8.67
GLASSEYED SNAPPER	3.2	0.01	0	0	0	0	3.2	1.78
JACKS	114.7	0.34	9.4	0.04	35.9	0.39	69.3	38.28
RAINBOW RUNNER	473.4	1.41	473.4	1.95	0	0	0	0
DOLPHINFISH (MAHIMAHI)	200.9	0.60	200.9	0.83	0	0	0	0
SNAPPERS	393.0	1.17	26.0	0.11	359.0	3.89	8.1	4.45
LEHI (SILVERMOUTH)	355.4	1.06	0	0	355.4	3.85	0	0
UKU (JOBFISH)	258.5	0.77	0	0	258.5	2.80	0	0
EHU (PINK SNAPPER)	1945.7	5.78	0	0	1945.7	21.08	0	0
ONAGA (RED SNAPPER)	2125.2	6.31	0	0	2125.2	23.03	0	0
BLUE LINED SNAPPER	21.5	0.06	0	0	21.5	0.23	0	0
YELLOWTAIL KALIKALI	499.0	1.48	0	0	499.0	5.41	0	0
OPAKAPAKA (PINK SNAP)	560.0	1.66	0	0	560.0	6.07	0	0
GINDAI (FLOWER SNAPPER)	246.6	0.73	0	0	246.6	2.67	0	0
EMPERORS	35.9	0.11	0	0	35.9	0.39	0	0
GOATFISH	28.7	0.09	0	0	28.7	0.31	0	0
SWEEPERS	3.1	0.01	0	0	0	0	3.1	1.72
RUDDERFISH	58.8	0.17	0	0	0	0	58.8	32.45
BARRACUDA	241.8	0.72	241.8	1.00	0	0	0	0
WRASSE	14.6	0.04	0	0	0	0	14.6	8.04
SURGEONFISH AND TANGS	4.2	0.01	0	0	0	0	4.2	2.30
WAHOO	4682.9	13.91	4682.9	19.32	0	0	0	0
DOGTOOTH TUNA	17.0	0.05	17.0	0.07	0	0	0	0
SKIPJACK TUNA	13180.3	39.16	13180.3	54.37	0	0	0	0
YELLOWFIN TUNA	3555.6	10.57	3555.6	14.67	0	0	0	0
BLUE MARLIN	1856.1	5.52	1856.1	7.66	0	0	0	0
TRIGGERFISH	114.2	0.34	0	0	114.2	1.24	0	0
TOTAL ALL SPECIES:	33654.1	100.00	24243.6	72.04	9229.3	27.42	181.1	0.54

Table 13.9

GUAM DAWR OCTOBER 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
RAINBOW RUNNER	806.0	5.03	806.0	5.34	0	0
DOLPHINFISH (MAHIMAHI)	2096.9	13.08	2096.9	13.88	0	0
BLUE LINED SNAPPER	10.4	0.07	0	0	10.4	1.12
YELLOWTAIL KALIKALI	113.6	0.71	0	0	113.6	12.19
YELLOWEYE OPAKAPAKA	43.2	0.27	0	0	43.2	4.63
EMPERORS	701.0	4.37	0	0	701.0	75.23
BARRACUDA	807.2	5.03	807.2	5.34	0	0
WRASSE	30.1	0.19	0	0	30.1	3.23
WAHOO	2896.8	18.07	2896.8	19.18	0	0
KAWAKAWA	328.2	2.05	328.2	2.17	0	0
SKIPJACK TUNA	2555.8	15.94	2555.8	16.92	0	0
YELLOWFIN TUNA	2882.8	17.98	2882.8	19.09	0	0
BLACK MARLIN	2729.1	17.02	2729.1	18.07	0	0
TRIGGERFISH	33.6	0.21	0	0	33.6	3.61
TOTAL ALL SPECIES:	16034.7	100.00	15102.9	94.19	931.9	5.81

Table 13.10

GUAM DAWR NOVEMBER 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	% ALL TROLLING GEAR		% THIS BOTTOM GEAR		% THIS OTHER GEAR	
NEEDLEFISH	68.3	0.05	68.3	0.06	0	0	0	0
GROUPER	440.8	0.34	0	0	382.6	2.52	58.2	28.72
JACKS	1972.1	1.52	0	0	1972.1	12.96	0	0
RAINBOW RUNNER	119.5	0.09	119.5	0.10	0	0	0	0
DOLPHINFISH (MAHIMAHI)	2873.9	2.21	2873.9	2.51	0	0	0	0
SNAPPERS	143.6	0.11	0	0	120.7	0.79	22.9	11.31
LEHI (SILVERMOUTH)	2248.1	1.73	0	0	2248.1	14.78	0	0
EHU (PINK SNAPPER)	904.0	0.70	0	0	904.0	5.94	0	0
ONAGA (RED SNAPPER)	1696.0	1.30	0	0	1696.0	11.15	0	0
BLUE LINED SNAPPER	130.9	0.10	0	0	130.9	0.86	0	0
YELLOWTAIL KALIKALI	1571.7	1.21	0	0	1571.7	10.33	0	0
YELLOWEYE OPAKAPAKA	2245.8	1.73	0	0	2245.8	14.76	0	0
GINDAI (FLOWER SNAPPER)	764.4	0.59	0	0	764.4	5.03	0	0
EMPERORS	2861.5	2.20	0	0	2852.4	18.75	9.1	4.50
GOATFISH	41.9	0.03	0	0	33.3	0.22	8.6	4.23
BARRACUDA	1485.2	1.14	1485.2	1.30	0	0	0	0
WRASSE	156.6	0.12	0	0	146.7	0.96	9.8	4.85
PARROTFISH	36.4	0.03	0	0	0	0	36.4	17.96
SURGEONFISH AND TANGS	57.6	0.04	0	0	0	0	57.6	28.42
OILFISH	142.0	0.11	0	0	142.0	0.93	0	0
WAHOO	62153.7	47.81	62153.7	54.24	0	0	0	0
DOGTOOTH TUNA	853.5	0.66	853.5	0.74	0	0	0	0
SKIPJACK TUNA	31073.9	23.90	31073.9	27.12	0	0	0	0
YELLOWFIN TUNA	8010.4	6.16	8010.4	6.99	0	0	0	0
BLUE MARLIN	7946.4	6.11	7946.4	6.93	0	0	0	0
TOTAL ALL SPECIES:	129998.3	100.00	114584.9	88.14	15210.7	11.70	202.8	0.16

Table 13.11

GUAM DAWR DECEMBER 1981
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
SCORPIONFISH	5.8	0.02	0	0	5.8	3.91
GROUPER	2.3	0.01	0	0	2.3	1.56
RAINBOW RUNNER	789.8	3.11	789.8	3.13	0	0
DOLPHINFISH (MAHIMAHI)	3464.6	13.65	3464.6	13.73	0	0
EHU (PINK SNAPPER)	42.3	0.17	0	0	42.3	28.55
YELLOWTAIL KALIKALI	10.8	0.04	0	0	10.8	7.30
KALIKALI (PINK SNAPPER)	4.4	0.02	0	0	4.4	3.00
GINDAI (FLOWER SNAPPER)	7.9	0.03	0	0	7.9	5.35
EMPERORS	53.5	0.21	0	0	53.5	36.11
BARRACUDA	66.3	0.26	66.3	0.26	0	0
TUNAS	171.7	0.68	171.7	0.68	0	0
WAHOO	6998.0	27.57	6998.0	27.73	0	0
KAWAKAWA	44.6	0.18	44.6	0.18	0	0
DOGTOOTH TUNA	32.6	0.13	32.6	0.13	0	0
SKIPJACK TUNA	9465.1	37.29	9465.1	37.51	0	0
YELLOWFIN TUNA	2826.0	11.13	2826.0	11.20	0	0
BLACK MARLIN	1373.5	5.41	1373.5	5.44	0	0
TRIGGERFISH	5.6	0.02	0	0	5.6	3.78
TRIPLETOOTH PUFFERS	15.5	0.06	0	0	15.5	10.43
TOTAL ALL SPECIES:	25380.4	100.00	25232.2	99.42	148.3	0.58

Table 14.1

GUAM DAWR JANUARY 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	32943.4	41	3149.9	12	593.9	6	8467.7	11	1594.7	6	10.8	57
BOTTOM FISH	5605.4	31	1039.1	9	305.1	9	2460.2	13	735.8	15	5.5	40
SPEAR MIX	360.2	85	19.9	85	8.0	85	59.8	85	23.9	85	18.1	0*
SPEAR SNORKEL	7.6	85	4.0	85	8.0	85	12.0	85	23.9	85	1.9	0*
TOTAL:	38916.6	31	4212.9	8	641.8	5	10999.6	10	1732.0	4	9.6	47

Table 14.2

GUAM DAWR FEBRUARY 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	68101.6	9	4684.3	3	920.5	5	14040.1	3	2772.0	6	14.4	11
BOTTOM FISH	3778.5	39	486.3	43	176.2	41	1337.8	56	489.7	51	8.3	22
LONG LINE	217.6	94	94.4	94	14.5	94	377.4	94	58.1	94	2.3	0*
TOTAL:	72097.8	8	5264.9	3	844.2	5	15755.3	4	2513.9	5	13.2	10

Table 14.3

GUAM DAWR MARCH 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	93068.0	5	3606.8	14	539.4	18	8457.1	12	1282.0	15	27.0	19
BOTTOM FISH	952.7	62	396.3	81	100.2	64	498.7	67	166.3	39	4.8	42*
OTHER	2018.1	84	471.3	77	43.8	76	1414.0	77	131.4	76	3.6	0*
TOTAL:	96038.8	5	4474.4	4	636.5	3	10369.7	5	1473.5	1	21.0	7

* Not enough data to properly compute Coefficient of Variation (CV).

Table 14.4

GUAM DAWR APRIL 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	35374.0	31	2699.1	12	535.1	3	7162.8	10	1391.8	1	12.6	11
BOTTOM FISH	6005.6	90	574.4	78	150.4	62	1187.6	76	321.6	58	6.7	33*
OTHER	9.3	95	252.0	95	10.5	95	504.0	95	21.0	95	0	0*
TOTAL:	41388.8	26	3525.5	16	604.6	10	8854.4	13	1520.5	7	11.1	22

Table 14.5

GUAM DAWR MAY 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	19156.4	15	2508.5	8	481.2	3	5901.6	7	1153.1	14	7.7	15
BOTTOM FISH	572.8	90	94.8	90	31.6	90	284.5	90	94.8	90	6.0	0*
LONG LINE	660.6	90	47.4	90	9.5	90	189.7	90	37.9	90	13.9	0*
OTHER	43.9	90	14.2	90	9.5	90	28.4	90	19.0	90	3.1	0*
TOTAL:	20433.8	9	2665.0	12	531.7	6	6404.2	10	1316.8	10	7.9	13

Table 14.6

GUAM DAWR JUNE 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	30705.2	16	3098.9	4	536.3	5	8712.9	22	1437.7	11	11.2	10
BOTTOM FISH	6517.9	32	759.7	35	203.9	15	2036.6	38	530.2	20	9.5	33
TOTAL:	37223.1	18	3858.6	9	564.2	4	10749.5	23	1566.0	18	10.4	8

* Not enough data to properly compute Coefficient of Variation (CV).

Table 14.7

GUAM DAWR JULY 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	40486.8	0	3848.3	0	1143.9	0	11183.9	0	1372.8	0	14.6	32*
BOTTOM FISH	1613.8	0	151.7	0	47.6	0	339.5	0	104.4	0	9.9	11*
SPEAR SNORKEL	36.7	0	5.2	0	10.4	0	15.6	0	31.3	0	7.1	0*
SPEAR SCUBA	0	0	2.6	0	5.2	0	2.6	0	5.2	0	0	0*
TOTAL:	42137.4	0	4007.8	0	1161.0	0	11541.5	0	1403.0	0	14.5	32

Table 14.8

GUAM DAWR AUGUST 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	50799.6	24	2795.5	7	518.4	7	6525.1	10	1209.9	10	17.1	22
BOTTOM FISH	4416.0	20	696.8	23	204.8	33	2010.3	19	580.3	29	6.5	41*
TOTAL:	55215.6	24	3492.3	7	640.1	11	8535.4	9	1565.3	14	15.8	20

Table 14.9

GUAM DAWR SEPTEMBER 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	16146.4	0	1466.7	0	318.8	0	3266.6	0	681.5	0	11.8	74*
BOTTOM FISH	3950.6	0	1176.1	0	221.8	0	1899.2	0	383.6	0	4.0	99*
TOTAL:	20097.0	0	2642.8	0	352.0	0	5165.7	0	768.5	0	8.8	78

* Not enough data to properly compute Coefficient of Variation (CV).

Table 14.10

GUAM DAWR OCTOBER 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	55411.6	20	4184.8	12	741.8	7	9519.8	12	1688.9	5	14.3	34
BOTTOM FISH	17969.7	55	1248.8	16	241.2	11	2433.8	19	461.9	14	13.5	71
ATULAI JIG	635.1	91	207.4	91	23.0	91	622.2	91	69.1	91	3.1	0*
SPEAR SNORKEL	1984.2	68	638.6	77	82.6	66	2070.3	82	234.2	69	6.4	0*
IKA SHIBI	2499.2	95	581.3	95	48.4	95	1162.7	95	96.9	95	4.3	0*
TOTAL:	78499.7	13	6861.0	22	931.3	9	15808.8	24	2067.8	12	13.3	28

Table 14.11

GUAM DAWR NOVEMBER 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	51000.3	18	3257.6	24	558.2	26	7242.7	18	1226.8	20	18.5	37
BOTTOM FISH	4608.1	31	840.3	13	182.8	9	1243.6	23	284.4	28	6.1	58
SPEAR SNORKEL	62.7	89	24.7	89	24.7	89	49.5	89	49.5	89	2.5	0*
TOTAL:	55671.1	15	4122.5	19	675.8	22	8535.8	18	1451.3	16	16.4	34

Table 14.12

GUAM DAWR DECEMBER 1982
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	38049.0	31	2739.2	14	491.2	22	6457.4	9	1190.2	19	12.7	21
BOTTOM FISH	2305.6	30	759.6	24	214.7	46	1933.5	16	525.4	43	3.1	1*
SPEAR SNORKEL	186.7	90	24.2	90	12.1	90	72.6	90	36.3	90	7.7	0*
SPEAR SCUBA	93.9	90	21.2	90	12.1	90	42.3	90	24.2	90	4.4	0*
LONG LINE	4389.0	90	205.2	90	18.0	90	1026.0	90	90.0	90	21.4	0*
TOTAL:	45024.2	21	3749.4	13	575.5	19	9531.9	7	1408.0	14	11.6	11

* Not enough data to properly compute Coefficient of Variation (CV).

Figure 13.1

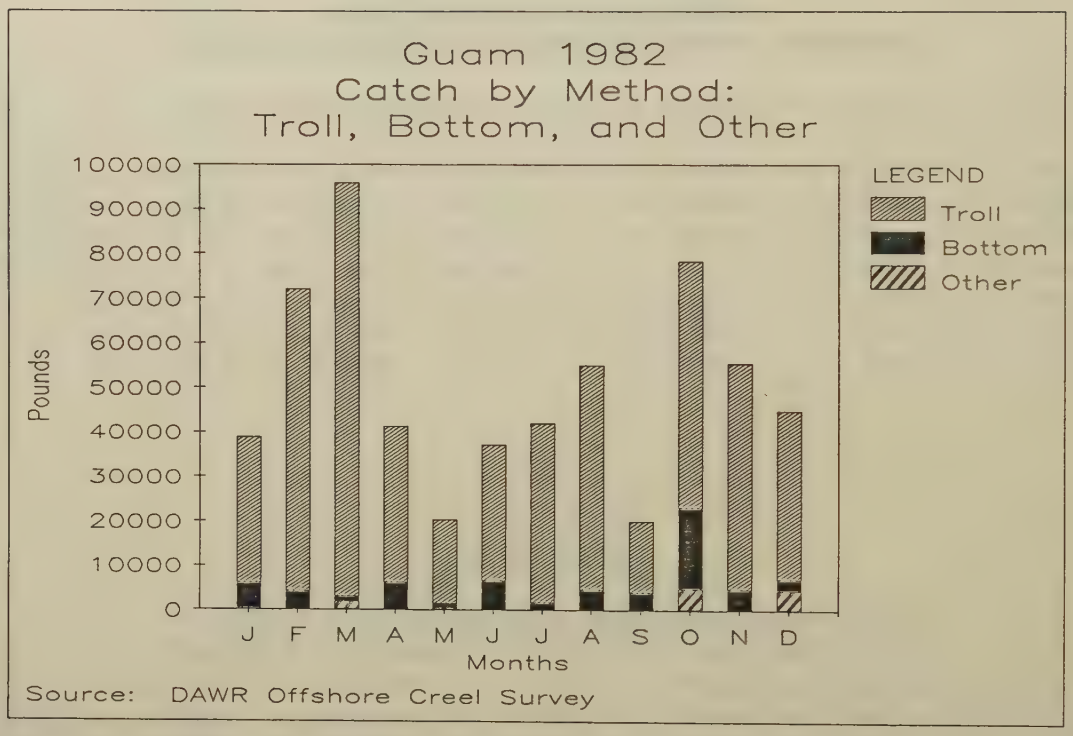


Figure 13.2

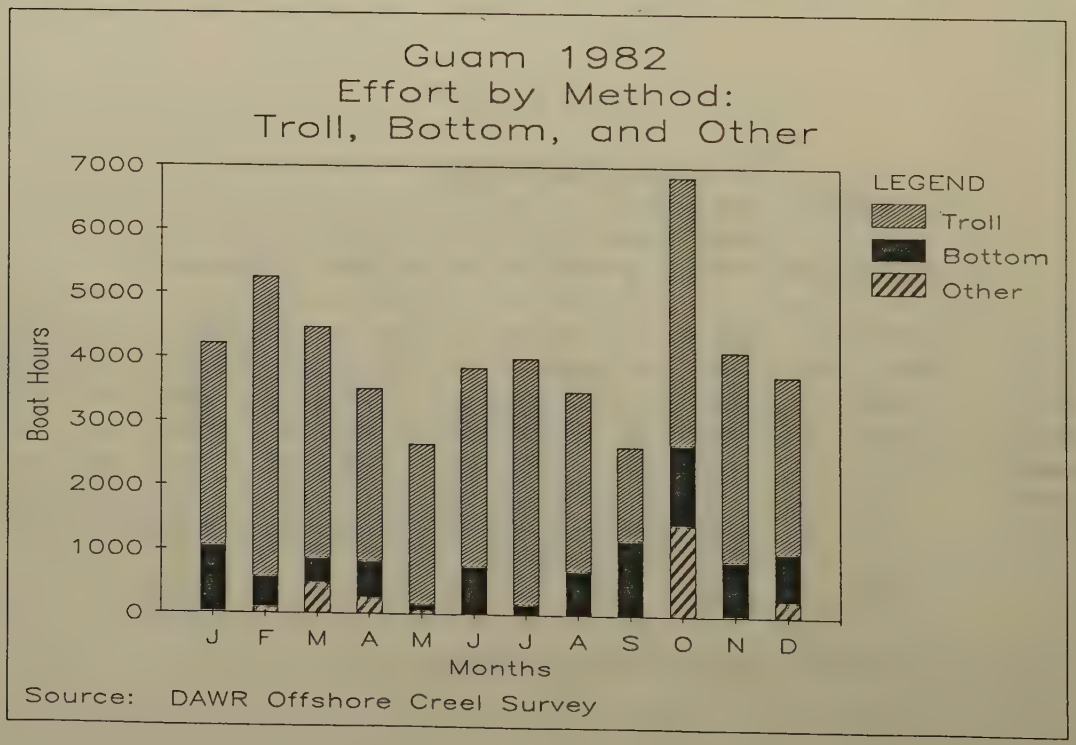


Table 15.1

GUAM DAWR ANNUAL 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	5302.6	0.85	1375.4	0.25	3927.1	6.50	0	0
MORAY EELS	103.8	0.02	0	0	9.7	0.02	94.1	0.75
LANCETFISH	62.3	0.01	0	0	0	0	62.3	0.50
SQUIRRELFISH	142.1	0.02	0	0	109.9	0.18	32.3	0.26
CORNETFISH	9.7	0	0	0	9.7	0.02	0	0
SCORPIONFISH	14.6	0	0	0	14.6	0.02	0	0
FLYING GURNARD	72.8	0.01	0	0	72.8	0.12	0	0
GROUPER	9466.2	1.52	0	0	9440.7	15.63	25.5	0.20
FALSE WHITING	4.9	0	0	0	4.9	0.01	0	0
JACKS	3312.0	0.53	1007.8	0.18	2254.7	3.73	49.4	0.40
RAINBOW RUNNER	4301.6	0.69	4229.2	0.77	72.4	0.12	0	0
BIGEYE SCAD (AKULE)	482.7	0.08	0	0	0	0	482.7	3.87
DOLPHINFISH (MAHIMAHI)	160200.0	25.70	157905.0	28.69	0	0	2295.0	18.38
SNAPPERS	3853.8	0.62	0	0	3716.2	6.15	137.6	1.10
LEHI (SILVERMOUTH)	2707.7	0.43	0	0	2707.7	4.48	0	0
UKU (JOBFISH)	5148.3	0.83	0	0	4963.5	8.22	184.8	1.48
EHU (PINK SNAPPER)	1282.5	0.21	0	0	1282.5	2.12	0	0
ONAGA (RED SNAPPER)	1087.4	0.17	0	0	1087.4	1.80	0	0
BLUE LINED SNAPPER	478.6	0.08	0	0	478.6	0.79	0	0
YELLOWTAIL KALIKALI	1601.9	0.26	0	0	1601.9	2.65	0	0
OPAKAPAKA (PINK SNAP)	744.2	0.12	0	0	744.2	1.23	0	0
YELLOWEYE OPAKAPAKA	1722.8	0.28	0	0	1722.8	2.85	0	0
KALIKALI (PINK SNAPPER)	306.8	0.05	0	0	306.8	0.51	0	0
GINDAI (FLOWER SNAPPER)	1896.1	0.30	0	0	1896.1	3.14	0	0
SWEETLIPS	235.3	0.04	0	0	0	0	235.3	1.88
EMPERORS	17145.5	2.75	0	0	17145.5	28.38	0	0
GOATFISH	563.1	0.09	0	0	557.8	0.92	5.3	0.04
SWEEPERS	4.2	0	0	0	0	0	4.2	0.03
RUDDERFISH	115.0	0.02	0	0	0	0	115.0	0.92
BARRACUDA	6551.0	1.05	6458.8	1.17	92.2	0.15	0	0
WRASSE	1012.4	0.16	0	0	953.3	1.58	59.1	0.47
PARROTFISH	536.8	0.09	0	0	0	0	536.8	4.30
SURGEONFISH AND TANGS	743.5	0.12	0	0	53.4	0.09	690.1	5.53
RABBITFISH	21.8	0	0	0	0	0	21.8	0.17
TUNAS	34.2	0.01	34.2	0.01	0	0	0	0
WAHOO	66415.9	10.66	66415.9	12.07	0	0	0	0
KAWAKAWA	880.4	0.14	880.4	0.16	0	0	0	0
DOGTOOTH TUNA	5623.8	0.90	4480.6	0.81	1143.2	1.89	0	0
SKIPJACK TUNA	137734.5	22.10	137494.4	24.98	0	0	240.1	1.92
YELLOWFIN TUNA	137201.5	22.01	132570.1	24.09	0	0	4631.3	37.08
SAILFISH	1424.8	0.23	1424.8	0.26	0	0	0	0
BLACK MARLIN	1911.2	0.31	1911.2	0.35	0	0	0	0
BLUE MARLIN	32464.5	5.21	32464.5	5.90	0	0	0	0

Table 15.1 (continue)

GUAM DAWR ANNUAL 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
FLOUNDER	27.2	0	0	0	0	0	27.2	0.22
TRIGGERFISH	719.9	0.12	0	0	719.9	1.19	0	0
FILEFISH	78.7	0.01	0	0	24.3	0.04	54.5	0.44
TRIPLETOOTH PUFFERS	48.5	0.01	0	0	48.5	0.08	0	0
ASSORTED BOTTOM FISH	3254.3	0.52	0	0	3254.3	5.39	0	0
ASSORTED TROLLING FISH	1743.6	0.28	1743.6	0.32	0	0	0	0
ASSORTED REEF FISH	604.5	0.10	0	0	0	0	604.5	4.84
MOLLUSKS	16.3	0	0	0	0	0	16.3	0.13
SQUID	40.5	0.01	0	0	0	0	40.5	0.32
OCTOPUS	54.5	0.01	0	0	0	0	54.5	0.44
DEEPWATER SHRIMPS	1788.6	0.29	0	0	0	0	1788.6	14.32
TOTAL ALL SPECIES:	623301.2	100.00	550395.8	88.30	60416.7	9.69	12488.7	2.00

Table 15.2

GUAM DAWR JANUARY 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
MORAY EELS	5.4	0.01	0	0	0	0	5.4	1.46
SQUIRRELFISH	19.6	0.05	0	0	8.2	0.15	11.4	3.11
CORNETFISH	8.2	0.02	0	0	8.2	0.15	0	0
GROUPER	216.3	0.56	0	0	216.3	3.86	0	0
JACKS	371.4	0.95	0	0	371.4	6.62	0	0
RAINBOW RUNNER	83.5	0.21	83.5	0.25	0	0	0	0
DOLPHINFISH (MAHIMAHI)	6110.7	15.70	6110.7	18.55	0	0	0	0
SNAPPERS	324.4	0.83	0	0	228.5	4.08	95.8	26.06
LEHI (SILVERMOUTH)	546.8	1.41	0	0	546.8	9.76	0	0
UKU (JOBFISH)	453.0	1.16	0	0	453.0	8.08	0	0
EHU (PINK SNAPPER)	269.3	0.69	0	0	269.3	4.80	0	0
ONAGA (RED SNAPPER)	187.7	0.48	0	0	187.7	3.35	0	0
BLUE LINED SNAPPER	20.0	0.05	0	0	20.0	0.36	0	0
YELLOWTAIL KALIKALI	408.9	1.05	0	0	408.9	7.29	0	0
OPAKAPAKA (PINK SNAP)	40.8	0.10	0	0	40.8	0.73	0	0
YELLOWEYE OPAKAPAKA	475.4	1.22	0	0	475.4	8.48	0	0
GINDAI (FLOWER SNAPPER)	589.7	1.52	0	0	589.7	10.52	0	0
SWEETLIPS	180.9	0.46	0	0	0	0	180.9	49.19
EMPERORS	1319.7	3.39	0	0	1319.7	23.54	0	0
GOATFISH	117.5	0.30	0	0	117.5	2.10	0	0
SWEEPERS	3.2	0.01	0	0	0	0	3.2	0.88
RUDDERFISH	38.5	0.10	0	0	0	0	38.5	10.47
BARRACUDA	576.2	1.48	576.2	1.75	0	0	0	0
WRASSE	61.2	0.16	0	0	61.2	1.09	0	0
PARROTFISH	11.6	0.03	0	0	0	0	11.6	3.17
SURGEONFISH AND TANGS	15.6	0.04	0	0	0	0	15.6	4.24
WAHOO	5330.3	13.70	5330.3	16.18	0	0	0	0
KAWAKAWA	104.4	0.27	104.4	0.32	0	0	0	0
DOGTOOTH TUNA	311.9	0.80	79.3	0.24	232.6	4.15	0	0
SKIPJACK TUNA	17574.3	45.16	17574.3	53.35	0	0	0	0
YELLOWFIN TUNA	3084.6	7.93	3084.6	9.36	0	0	0	0
TRIGGERFISH	50.2	0.13	0	0	50.2	0.90	0	0
MOLLUSKS	5.3	0.01	0	0	0	0	5.3	1.43
TOTAL ALL SPECIES:	38916.6	100.00	32943.4	84.65	5605.4	14.40	367.8	0.95

Table 15.3

GUAM DAWR FEBRUARY 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	236.6	0.33	0	0	236.6	6.26	0	0
JACKS	263.0	0.36	91.3	0.13	171.8	4.55	0	0
RAINBOW RUNNER	234.1	0.32	234.1	0.34	0	0	0	0
DOLPHINFISH (MAHIMAHI)	42727.9	59.26	42510.3	62.42	0	0	217.6	100.00
SNAPPERS	243.0	0.34	0	0	243.0	6.43	0	0
LEHI (SILVERMOUTH)	111.7	0.15	0	0	111.7	2.96	0	0
UKU (JOBFISH)	167.6	0.23	0	0	167.6	4.44	0	0
EHU (PINK SNAPPER)	16.8	0.02	0	0	16.8	0.44	0	0
YELLOWTAIL KALIKALI	100.6	0.14	0	0	100.6	2.66	0	0
OPAKAPAKA (PINK SNAP)	100.6	0.14	0	0	100.6	2.66	0	0
YELLOWEYE OPAKAPAKA	125.7	0.17	0	0	125.7	3.33	0	0
GINDAI (FLOWER SNAPPER)	184.3	0.26	0	0	184.3	4.88	0	0
EMPERORS	2088.7	2.90	0	0	2088.7	55.28	0	0
GOATFISH	26.0	0.04	0	0	26.0	0.69	0	0
BARRACUDA	2669.0	3.70	2669.0	3.92	0	0	0	0
WRASSE	93.0	0.13	0	0	93.0	2.46	0	0
WAHOO	9875.3	13.70	9875.3	14.50	0	0	0	0
KAWAKAWA	121.8	0.17	121.8	0.18	0	0	0	0
DOGTOOTH TUNA	757.8	1.05	757.8	1.11	0	0	0	0
SKIPJACK TUNA	7184.1	9.96	7184.1	10.55	0	0	0	0
YELLOWFIN TUNA	4658.0	6.46	4658.0	6.84	0	0	0	0
TRIGGERFISH	70.4	0.10	0	0	70.4	1.86	0	0
FILEFISH	14.0	0.02	0	0	14.0	0.37	0	0
TRIPLETOOTH PUFFERS	27.9	0.04	0	0	27.9	0.74	0	0
TOTAL ALL SPECIES:	72097.8	100.00	68101.6	94.46	3778.5	5.24	217.6	0.30

Table 15.4

GUAM DAWR MARCH 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	182.6	0.19	0	0	182.6	19.16	0	0
RAINBOW RUNNER	56.9	0.06	56.9	0.06	0	0	0	0
DOLPHINFISH (MAHIMAHI)	70752.8	73.67	70752.8	76.02	0	0	0	0
EHU (PINK SNAPPER)	37.8	0.04	0	0	37.8	3.96	0	0
BLUE LINED SNAPPER	12.6	0.01	0	0	12.6	1.32	0	0
YELLOWEYE OPAKAPAKA	39.9	0.04	0	0	39.9	4.19	0	0
GINDAI (FLOWER SNAPPER)	75.5	0.08	0	0	75.5	7.93	0	0
EMPERORS	604.3	0.63	0	0	604.3	63.44	0	0
BARRACUDA	238.9	0.25	238.9	0.26	0	0	0	0
WAHOO	4422.6	4.61	4422.6	4.75	0	0	0	0
KAWAKAWA	182.0	0.19	182.0	0.20	0	0	0	0
SKIPJACK TUNA	10896.2	11.35	10896.2	11.71	0	0	0	0
YELLOWFIN TUNA	5002.0	5.21	5002.0	5.37	0	0	0	0
BLUE MARLIN	1516.7	1.58	1516.7	1.63	0	0	0	0
DEEPWATER SHRIMPS	2018.1	2.10	0	0	0	0	2018.1	100.00
TOTAL ALL SPECIES:	96038.8	100.00	93068.0	96.91	952.7	0.99	2018.1	2.10

Table 15.5

GUAM DAWR APRIL 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SCORPIONFISH	20.4	0.05	0	0	20.4	0.34	0	0
GROUPER	449.5	1.09	0	0	449.5	7.48	0	0
JACKS	433.3	1.05	327.7	0.93	105.6	1.76	0	0
DOLPHINFISH (MAHIMAHI)	16494.7	39.85	16494.7	46.63	0	0	0	0
SNAPPERS	23.2	0.06	0	0	23.2	0.39	0	0
LEHI (SILVERMOUTH)	1784.3	4.31	0	0	1784.3	29.71	0	0
UKU (JOBFISH)	572.1	1.38	0	0	572.1	9.53	0	0
EHU (PINK SNAPPER)	136.2	0.33	0	0	136.2	2.27	0	0
BLUE LINED SNAPPER	20.4	0.05	0	0	20.4	0.34	0	0
YELLOWTAIL KALIKALI	120.5	0.29	0	0	120.5	2.01	0	0
OPAKAPAKA (PINK SNAP)	49.7	0.12	0	0	49.7	0.83	0	0
YELLOWEYE OPAKAPAKA	241.1	0.58	0	0	241.1	4.01	0	0
GINDAI (FLOWER SNAPPER)	293.5	0.71	0	0	293.5	4.89	0	0
EMPERORS	693.3	1.68	0	0	693.3	11.54	0	0
GOATFISH	10.2	0.02	0	0	10.2	0.17	0	0
BARRACUDA	559.8	1.35	559.8	1.58	0	0	0	0
TUNAS	23.2	0.06	23.2	0.07	0	0	0	0
WAHOO	2352.2	5.68	2352.2	6.65	0	0	0	0
DOGTOOTH TUNA	584.3	1.41	268.8	0.76	315.5	5.25	0	0
SKIPJACK TUNA	10773.6	26.03	10773.6	30.46	0	0	0	0
YELLOWFIN TUNA	3115.0	7.53	3115.0	8.81	0	0	0	0
BLACK MARLIN	1458.9	3.52	1458.9	4.12	0	0	0	0
TRIGGERFISH	216.6	0.52	0	0	216.6	3.61	0	0
ASSORTED BOTTOM FISH	953.4	2.30	0	0	953.4	15.88	0	0
DEEPWATER SHRIMPS	9.3	0.02	0	0	0	0	9.3	100.00
TOTAL ALL SPECIES:	41388.8	100.00	35374.0	85.47	6005.6	14.51	9.3	0.02

Table 15.6

GUAM DAWR MAY 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	24.0	0.12	0	0	24.0	4.19	0	0
GROUPER	109.8	0.54	0	0	109.8	19.17	0	0
JACKS	82.4	0.40	0	0	82.4	14.38	0	0
RAINBOW RUNNER	84.1	0.41	84.1	0.44	0	0	0	0
DOLPHINFISH (MAHIMAHI)	5358.6	26.22	4791.3	25.01	0	0	567.3	80.53
UKU (JOBFISH)	61.0	0.30	0	0	36.0	6.29	24.9	3.54
BLUE LINED SNAPPER	8.6	0.04	0	0	8.6	1.50	0	0
EMPERORS	153.4	0.75	0	0	153.4	26.78	0	0
GOATFISH	21.3	0.10	0	0	21.3	3.71	0	0
WRASSE	65.9	0.32	0	0	65.9	11.50	0	0
WAHOO	1989.7	9.74	1989.7	10.39	0	0	0	0
KAWAKAWA	33.7	0.16	33.7	0.18	0	0	0	0
SKIPJACK TUNA	7222.7	35.35	7222.7	37.70	0	0	0	0
YELLOWFIN TUNA	2688.5	13.16	2595.2	13.55	0	0	93.3	13.24
BLUE MARLIN	2439.8	11.94	2439.8	12.74	0	0	0	0
TRIGGERFISH	71.4	0.35	0	0	71.4	12.46	0	0
SQUID	19.0	0.09	0	0	0	0	19.0	2.69
TOTAL ALL SPECIES:	20433.8	100.00	19156.4	93.75	572.8	2.80	704.5	3.45

Table 15.7

GUAM DAWR JUNE 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
SHARKS	266.7	0.72	0	0	266.7	4.09
SQUIRRELFISH	10.3	0.03	0	0	10.3	0.16
FLYING GURNARD	50.0	0.13	0	0	50.0	0.77
GROUPER	367.4	0.99	0	0	367.4	5.64
JACKS	646.5	1.74	281.7	0.92	364.8	5.60
RAINBOW RUNNER	287.3	0.77	226.6	0.74	60.7	0.93
DOLPHINFISH (MAHIMAHI)	370.4	1.00	370.4	1.21	0	0
SNAPPERS	1107.9	2.98	0	0	1107.9	17.00
LEHI (SILVERMOUTH)	100.0	0.27	0	0	100.0	1.53
UKU (JOBFISH)	730.2	1.96	0	0	730.2	11.20
EHU (PINK SNAPPER)	144.0	0.39	0	0	144.0	2.21
ONAGA (RED SNAPPER)	426.8	1.15	0	0	426.8	6.55
BLUE LINED SNAPPER	42.0	0.11	0	0	42.0	0.64
YELLOWTAIL KALIKALI	38.7	0.10	0	0	38.7	0.59
OPAKAPAKA (PINK SNAP)	110.0	0.30	0	0	110.0	1.69
YELLOWEYE OPAKAPAKA	395.1	1.06	0	0	395.1	6.06
KALIKALI (PINK SNAPPER)	70.0	0.19	0	0	70.0	1.07
GINDAI (FLOWER SNAPPER)	197.7	0.53	0	0	197.7	3.03
EMPERORS	1562.1	4.20	0	0	1562.1	23.97
GOATFISH	100.0	0.27	0	0	100.0	1.53
BARRACUDA	253.2	0.68	189.9	0.62	63.3	0.97
WAHOO	2406.3	6.46	2406.3	7.84	0	0
SKIPJACK TUNA	14825.1	39.83	14825.1	48.28	0	0
YELLOWFIN TUNA	3791.6	10.19	3791.6	12.35	0	0
BLUE MARLIN	8613.5	23.14	8613.5	28.05	0	0
TRIGGERFISH	82.7	0.22	0	0	82.7	1.27
ASSORTED BOTTOM FISH	227.4	0.61	0	0	227.4	3.49
TOTAL ALL SPECIES:	37223.1	100.00	30705.2	82.49	6517.9	17.51

Table 15.8

GUAM DAWR JULY 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
MORAY EELS	36.7	0.09	0	0	0	0	36.7	100.00
SQUIRRELFISH	3.5	0.01	0	0	3.5	0.22	0	0
GROUPER	116.4	0.28	0	0	116.4	7.21	0	0
JACKS	30.9	0.07	0	0	30.9	1.91	0	0
RAINBOW RUNNER	105.5	0.25	105.5	0.26	0	0	0	0
DOLPHINFISH (MAHIMAHI)	662.6	1.57	662.6	1.64	0	0	0	0
SNAPPERS	14.4	0.03	0	0	14.4	0.89	0	0
UKU (JOBFISH)	281.8	0.67	0	0	281.8	17.46	0	0
BLUE LINED SNAPPER	23.9	0.06	0	0	23.9	1.48	0	0
YELLOWTAIL KALIKALI	18.5	0.04	0	0	18.5	1.15	0	0
KALIKALI (PINK SNAPPER)	30.9	0.07	0	0	30.9	1.91	0	0
EMPERORS	478.6	1.14	0	0	478.6	29.66	0	0
BARRACUDA	205.9	0.49	205.9	0.51	0	0	0	0
WAHOO	2485.4	5.90	2485.4	6.14	0	0	0	0
KAWAKAWA	141.7	0.34	141.7	0.35	0	0	0	0
DOGTOOTH TUNA	6.6	0.02	6.6	0.02	0	0	0	0
SKIPJACK TUNA	13163.2	31.24	13163.2	32.51	0	0	0	0
YELLOWFIN TUNA	16495.3	39.15	16495.3	40.74	0	0	0	0
BLUE MARLIN	5477.0	13.00	5477.0	13.53	0	0	0	0
ASSORTED BOTTOM FISH	615.0	1.46	0	0	615.0	38.11	0	0
ASSORTED TROLLING FISH	1743.6	4.14	1743.6	4.31	0	0	0	0
TOTAL ALL SPECIES:	42137.4	100.00	40486.8	96.08	1613.8	3.83	36.7	0.09

Table 15.9

GUAM DAWR AUGUST 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
GROUPER	827.6	1.50	0	0	827.6	18.74
FALSE WHITING	4.4	0.01	0	0	4.4	0.10
JACKS	286.4	0.52	33.9	0.07	252.5	5.72
RAINBOW RUNNER	47.3	0.09	47.3	0.09	0	0
DOLPHINFISH (MAHIMAHI)	140.0	0.25	140.0	0.28	0	0
UKU (JOBFISH)	489.4	0.89	0	0	489.4	11.08
BLUE LINED SNAPPER	38.9	0.07	0	0	38.9	0.88
KALIKALI (PINK SNAPPER)	118.9	0.22	0	0	118.9	2.69
EMPERORS	2157.0	3.91	0	0	2157.0	48.84
GOATFISH	36.7	0.07	0	0	36.7	0.83
BARRACUDA	360.1	0.65	360.1	0.71	0	0
WRASSE	347.8	0.63	0	0	347.8	7.88
TUNAS	3.6	0.01	3.6	0.01	0	0
WAHOO	1589.0	2.88	1589.0	3.13	0	0
SKIPJACK TUNA	13638.5	24.70	13638.5	26.85	0	0
YELLOWFIN TUNA	30135.6	54.58	30135.6	59.32	0	0
BLUE MARLIN	4851.7	8.79	4851.7	9.55	0	0
TRIGGERFISH	43.7	0.08	0	0	43.7	0.99
ASSORTED BOTTOM FISH	99.2	0.18	0	0	99.2	2.25
TOTAL ALL SPECIES:	55215.6	100.00	50799.6	92.00	4416.0	8.00

Table 15.10

GUAM DAWR SEPTEMBER 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
SHARKS	1847.2	9.19	1533.9	9.50	313.3	7.93
SQUIRRELFISH	26.1	0.13	0	0	26.1	0.66
GROUPER	536.6	2.67	0	0	536.6	13.58
JACKS	487.6	2.43	43.8	0.27	443.8	11.23
RAINBOW RUNNER	657.4	3.27	657.4	4.07	0	0
DOLPHINFISH (MAHIMAHI)	566.1	2.82	566.1	3.51	0	0
SNAPPERS	17.4	0.09	0	0	17.4	0.44
UKU (JOBFISH)	1061.6	5.28	0	0	1061.6	26.87
EHU (PINK SNAPPER)	58.0	0.29	0	0	58.0	1.47
BLUE LINED SNAPPER	91.7	0.46	0	0	91.7	2.32
YELLOWTAIL KALIKALI	208.8	1.04	0	0	208.8	5.29
OPAKAPAKA (PINK SNAP)	17.4	0.09	0	0	17.4	0.44
GINDAI (FLOWER SNAPPER)	188.5	0.94	0	0	188.5	4.77
EMPERORS	768.7	3.82	0	0	768.7	19.46
GOATFISH	26.1	0.13	0	0	26.1	0.66
WRASSE	70.8	0.35	0	0	70.8	1.79
SURGEONFISH AND TANGS	63.8	0.32	0	0	63.8	1.62
WAHOO	1011.7	5.03	1011.7	6.27	0	0
KAWAKAWA	153.4	0.76	153.4	0.95	0	0
DOGTOOTH TUNA	708.5	3.53	708.5	4.39	0	0
SKIPJACK TUNA	1767.7	8.80	1767.7	10.95	0	0
YELLOWFIN TUNA	5007.2	24.91	5007.2	31.01	0	0
BLUE MARLIN	4696.7	23.37	4696.7	29.09	0	0
TRIGGERFISH	23.2	0.12	0	0	23.2	0.59
ASSORTED BOTTOM FISH	34.8	0.17	0	0	34.8	0.88
TOTAL ALL SPECIES:	20097.0	100.00	16146.4	80.34	3950.6	19.66

Table 15.11

GUAM DAWR OCTOBER 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	4120.2	5.25	0	0	4120.2	22.93	0	0
MORAY EELS	13.4	0.02	0	0	13.4	0.07	0	0
SQUIRRELFISH	3.3	0	0	0	0	0	3.3	0.06
GROUPER	6848.7	8.72	0	0	6834.1	38.03	14.6	0.29
JACKS	268.8	0.34	0	0	215.3	1.20	53.5	1.05
RAINBOW RUNNER	2960.4	3.77	2960.4	5.34	0	0	0	0
BIGEYE SCAD (AKULE)	635.1	0.81	0	0	0	0	635.1	12.41
DOLPHINFISH (MAHIMAHI)	420.8	0.54	420.8	0.76	0	0	0	0
SNAPPERS	1123.9	1.43	0	0	1123.9	6.25	0	0
LEHI (SILVERMOUTH)	120.2	0.15	0	0	120.2	0.67	0	0
UKU (JOBFISH)	661.1	0.84	0	0	661.1	3.68	0	0
BLUE LINED SNAPPER	8.0	0.01	0	0	8.0	0.04	0	0
YELLOWTAIL KALIKALI	195.0	0.25	0	0	195.0	1.09	0	0
GINDAI (FLOWER SNAPPER)	66.8	0.09	0	0	66.8	0.37	0	0
EMPERORS	3926.6	5.00	0	0	3926.6	21.85	0	0
GOATFISH	28.7	0.04	0	0	28.7	0.16	0	0
RUDDERFISH	33.2	0.04	0	0	0	0	33.2	0.65
BARRACUDA	963.7	1.23	963.7	1.74	0	0	0	0
WRASSE	192.6	0.25	0	0	126.2	0.70	66.4	1.30
PARROTFISH	531.3	0.68	0	0	0	0	531.3	10.38
SURGEONFISH AND TANGS	816.9	1.04	0	0	0	0	816.9	15.96
RABBITFISH	26.6	0.03	0	0	0	0	26.6	0.52
WAHOO	9429.0	12.01	9429.0	17.02	0	0	0	0
KAWAKAWA	72.4	0.09	72.4	0.13	0	0	0	0
DOGTOOTH TUNA	3393.4	4.32	3393.4	6.12	0	0	0	0
SKIPJACK TUNA	8858.9	11.29	8858.9	15.99	0	0	0	0
YELLOWFIN TUNA	29369.1	37.41	26869.9	48.49	0	0	2499.2	48.83
BLUE MARLIN	2443.2	3.11	2443.2	4.41	0	0	0	0
FLOUNDER	33.2	0.04	0	0	0	0	33.2	0.65
TRIGGERFISH	76.1	0.10	0	0	76.1	0.42	0	0
FILEFISH	66.4	0.08	0	0	0	0	66.4	1.30
ASSORTED BOTTOM FISH	454.1	0.58	0	0	454.1	2.53	0	0
ASSORTED REEF FISH	272.3	0.35	0	0	0	0	272.3	5.32
OCTOPUS	66.4	0.08	0	0	0	0	66.4	1.30
TOTAL ALL SPECIES:	78499.7	100.00	55411.6	70.59	17969.7	22.89	5118.4	6.52

Table 15.12

GUAM DAWR NOVEMBER 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	91.9	0.17	0	0	75.6	1.64	16.4	26.09
RAINBOW RUNNER	39.2	0.07	39.2	0.08	0	0	0	0
DOLPHINFISH (MAHIMAHI)	8063.4	14.48	8063.4	15.81	0	0	0	0
SNAPPERS	972.1	1.75	0	0	955.8	20.74	16.4	26.09
LEHI (SILVERMOUTH)	451.7	0.81	0	0	451.7	9.80	0	0
EHU (PINK SNAPPER)	889.1	1.60	0	0	889.1	19.29	0	0
ONAGA (RED SNAPPER)	444.5	0.80	0	0	444.5	9.65	0	0
YELLOWTAIL KALIKALI	456.1	0.82	0	0	456.1	9.90	0	0
OPAKAPAKA (PINK SNAP)	177.8	0.32	0	0	177.8	3.86	0	0
YELLOWEYE OPAKAPAKA	106.7	0.19	0	0	106.7	2.32	0	0
GINDAI (FLOWER SNAPPER)	72.9	0.13	0	0	72.9	1.58	0	0
EMPERORS	426.8	0.77	0	0	426.8	9.26	0	0
RUDDERFISH	12.0	0.02	0	0	0	0	12.0	19.13
BARRACUDA	712.7	1.28	712.7	1.40	0	0	0	0
PARROTFISH	18.0	0.03	0	0	0	0	18.0	28.70
WAHOO	16694.7	29.99	16694.7	32.73	0	0	0	0
SKIPJACK TUNA	12054.0	21.65	12054.0	23.64	0	0	0	0
YELLOWFIN TUNA	13436.4	24.14	13436.4	26.35	0	0	0	0
TRIGGERFISH	71.1	0.13	0	0	71.1	1.54	0	0
ASSORTED BOTTOM FISH	480.1	0.86	0	0	480.1	10.42	0	0
TOTAL ALL SPECIES:	55671.1	100.00	51000.3	91.61	4608.1	8.28	62.7	0.11

Table 15.13

GUAM DAWR DECEMBER 1982
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
LANCETFISH	99.6	0.22	0	0	0	0	99.6	2.13
SQUIRRELFISH	24.6	0.05	0	0	14.0	0.61	10.6	0.23
GROUPER	646.2	1.44	0	0	646.2	28.03	0	0
RAINBOW RUNNER	104.0	0.23	104.0	0.27	0	0	0	0
DOLPHINFISH (MAHIMAHI)	4629.5	10.28	3520.4	9.25	0	0	1109.1	23.75
LEHI (SILVERMOUTH)	80.6	0.18	0	0	80.6	3.49	0	0
UKU (JOBFISH)	115.6	0.26	0	0	115.6	5.01	0	0
EHU (PINK SNAPPER)	35.0	0.08	0	0	35.0	1.52	0	0
BLUE LINED SNAPPER	122.9	0.27	0	0	122.9	5.33	0	0
YELLOWTAIL KALIKALI	136.6	0.30	0	0	136.6	5.92	0	0
OPAKAPAKA (PINK SNAP)	154.1	0.34	0	0	154.1	6.68	0	0
YELLOWEYE OPAKAPAKA	63.0	0.14	0	0	63.0	2.73	0	0
GINDAI (FLOWER SNAPPER)	31.5	0.07	0	0	31.5	1.37	0	0
EMPERORS	725.0	1.61	0	0	725.0	31.44	0	0
GOATFISH	82.5	0.18	0	0	76.7	3.33	5.8	0.12
BARRACUDA	73.4	0.16	73.4	0.19	0	0	0	0
WRASSE	68.0	0.15	0	0	60.7	2.63	7.3	0.16
PARROTFISH	70.1	0.16	0	0	0	0	70.1	1.50
WAHOO	8184.2	18.18	8184.2	21.51	0	0	0	0
KAWAKAWA	52.0	0.12	52.0	0.14	0	0	0	0
DOGTOOTH TUNA	192.7	0.43	192.7	0.51	0	0	0	0
SKIPJACK TUNA	11805.2	26.22	11069.8	29.09	0	0	735.5	15.75
YELLOWFIN TUNA	16150.0	35.87	13705.2	36.02	0	0	2444.8	52.36
SAILFISH	1147.3	2.55	1147.3	3.02	0	0	0	0
ASSORTED BOTTOM FISH	43.8	0.10	0	0	43.8	1.90	0	0
ASSORTED REEF FISH	186.7	0.41	0	0	0	0	186.7	4.00
TOTAL ALL SPECIES:	45024.2	100.00	38049.0	84.51	2305.6	5.12	4669.6	10.37

Table 16.1

GUAM DAWR JANUARY 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	21562.3	40	1351.7	9	327.3	10	3632.4	13	833.1	18	15.9	32
BOTTOM FISH	9467.2	86	1371.8	68	220.7	58	2029.2	66	329.8	54	4.2	114*
TOTAL:	31029.5	47	2723.5	38	469.6	28	5661.6	26	1033.7	19	12.1	28

Table 16.2

GUAM DAWR FEBRUARY 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	27615.2	0	2852.0	0	584.1	0	7164.1	0	1508.7	0	9.5	12*
BOTTOM FISH	1199.9	0	610.5	0	164.7	0	1498.3	0	395.9	0	2.6	0*
SPEAR SCUBA	1372.0	0	232.0	0	66.3	0	463.9	0	132.6	0	5.9	0*
TOTAL:	30187.1	0	3694.5	0	641.9	0	9126.3	0	1625.4	0	8.4	16

Table 16.3

GUAM DAWR MARCH 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	90363.5	14	4685.9	6	806.9	1	11543.2	17	1968.9	16	20.3	29
BOTTOM FISH	1282.3	24	488.1	15	162.5	20	1018.2	32	351.5	42	2.5	15
SPEAR SNORKEL	139.8	88	24.3	88	12.2	88	48.6	88	24.3	88	5.8	0*
SPEAR SCUBA	160.0	95	18.8	95	26.9	95	37.6	95	53.7	95	8.5	0*
TOTAL:	91945.6	14	5217.1	5	866.5	1	12647.6	17	2127.1	16	18.9	29

* Not enough data to properly compute Coefficient Variation (CV).

Table 16.4

GUAM DAWR APRIL 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	83379.1	0	3432.4	0	583.2	0	6938.8	0	1197.8	0	20.8	12*
BOTTOM FISH	2039.0	0	724.1	0	228.3	0	1490.0	0	455.4	0	4.2	104*
ATULAI JIG	2063.6	0	364.0	0	52.0	0	728.0	0	104.0	0	5.7	0*
SPEAR SCUBA	349.4	0	55.3	0	18.4	0	55.3	0	18.4	0	6.3	0*
TOTAL:	87831.1	0	4575.8	0	605.6	0	9212.2	0	1233.4	0	17.0	19

Table 16.5

GUAM DAWR MAY 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	35875.7	0	2250.8	0	403.5	0	5548.0	0	999.0	0	8.0	46
BOTTOM FISH	235.5	0	23.5	0	47.1	0	47.1	0	94.1	0	5.0	141*
SPEAR SNORKEL	1471.3	0	89.9	0	30.0	0	269.6	0	89.9	0	8.2	141*
SPEAR SCUBA	944.4	0	104.8	0	59.9	0	209.7	0	119.8	0	4.5	141*
TOTAL:	38526.9	0	2469.0	0	482.1	0	6074.3	0	1171.8	0	7.9	46

Table 16.6

GUAM DAWR JUNE 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	6402.1	48	1414.6	31	293.3	20	4441.1	30	960.6	16	5.2	43
BOTTOM FISH	585.2	87	155.0	87	29.1	87	258.4	87	48.4	87	3.8	0*
SPEAR SNORKEL	7.2	87	46.4	87	23.2	87	185.6	87	92.8	87	.2	0*
SPEAR SCUBA	889.7	95	147.6	95	49.2	95	147.6	95	49.2	95	6.0	0*
TOTAL:	7884.2	49	1763.6	24	364.5	11	5032.7	24	1091.2	8	4.8	46

* Not enough data to properly compute Coefficient Variation (CV).

Table 16.7

GUAM DAWR JULY 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	33464.7	17	4149.9	3	1127.8	3	11457.1	10	1737.3	10	9.5	35
BOTTOM FISH	5117.5	57	1341.2	33	279.6	26	2720.8	16	643.0	34	3.7	58*
TOTAL:	38582.2	21	5491.1	6	1271.5	1	14177.9	6	2124.1	9	8.1	34

Table 16.8

GUAM DAWR AUGUST 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	45786.1	20	2754.2	13	470.7	8	8165.4	11	1447.5	23	12.8	8
BOTTOM FISH	5737.9	29	905.7	13	280.8	18	3099.4	34	1028.9	37	6.2	19
SPEAR SCUBA	1080.9	87	102.6	87	37.3	87	205.2	87	74.6	87	10.5	0*
TOTAL:	52604.9	14	3762.5	6	626.7	7	11470.0	16	1825.9	21	12.1	10

Table 16.9

GUAM DAWR SEPTEMBER 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	22369.2	24	1922.2	20	389.3	8	4899.1	10	1048.9	15	12.0	8
BOTTOM FISH	7779.0	54	937.9	10	413.9	13	1952.3	5	874.5	7	6.8	31
OTHER	46.0	88	6.1	88	10.2	88	6.1	88	10.2	88	7.5	0*
TOTAL:	30194.3	28	2866.2	17	586.9	3	6857.5	9	1499.8	7	11.3	6

* Not enough data to properly compute Coefficient Variation (CV).

Table 16.10

GUAM DAWR OCTOBER 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	34148.6	15	2579.5	17	432.7	18	8525.9	35	1306.6	23	13.6	9
BOTTOM FISH	9909.0	88	905.2	66	132.8	20	2440.1	75	268.2	37	6.7	11*
ATULAI JIG	10161.6	89	303.9	89	50.7	89	1215.6	89	202.6	89	33.4	0*
SPEAR SNORKEL	133.6	69	93.7	81	27.3	73	202.9	76	62.4	68	3.3	0*
SPEAR SCUBA	734.9	46	87.2	57	43.6	57	102.8	50	51.4	50	9.7	35*
OTHER	253.4	89	47.6	89	9.5	89	190.6	89	38.1	89	5.3	0*
TOTAL:	55341.1	23	4017.1	22	604.6	3	12677.9	35	1704.3	10	12.7	3

Table 16.11

GUAM DAWR NOVEMBER 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	18119.1	32	2081.4	26	344.4	17	4306.2	20	761.3	13	7.5	14
BOTTOM FISH	3268.3	85	234.5	73	149.1	42	264.5	65	209.0	32	8.3	30*
SPEAR SCUBA	169.1	95	36.7	95	18.3	95	36.7	95	18.3	95	4.6	0*
TOTAL:	21556.5	18	2352.6	20	454.7	15	4607.4	15	954.2	3	7.6	12

Table 16.12

GUAM DAWR DECEMBER 1983
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	21684.4	40	2556.6	35	473.5	20	5837.5	28	1131.4	21	6.5	41
BOTTOM FISH	4438.7	34	797.4	4	269.8	11	1693.5	5	578.7	12	4.7	33
SPEAR SCUBA	238.1	90	28.0	90	14.0	90	56.1	90	28.0	90	8.5	0*
TOTAL:	26361.1	37	3382.1	27	651.7	11	7587.1	22	1494.7	15	7.1	24

* Not enough data to properly compute Coefficient Variation (CV).

Figure 14.1

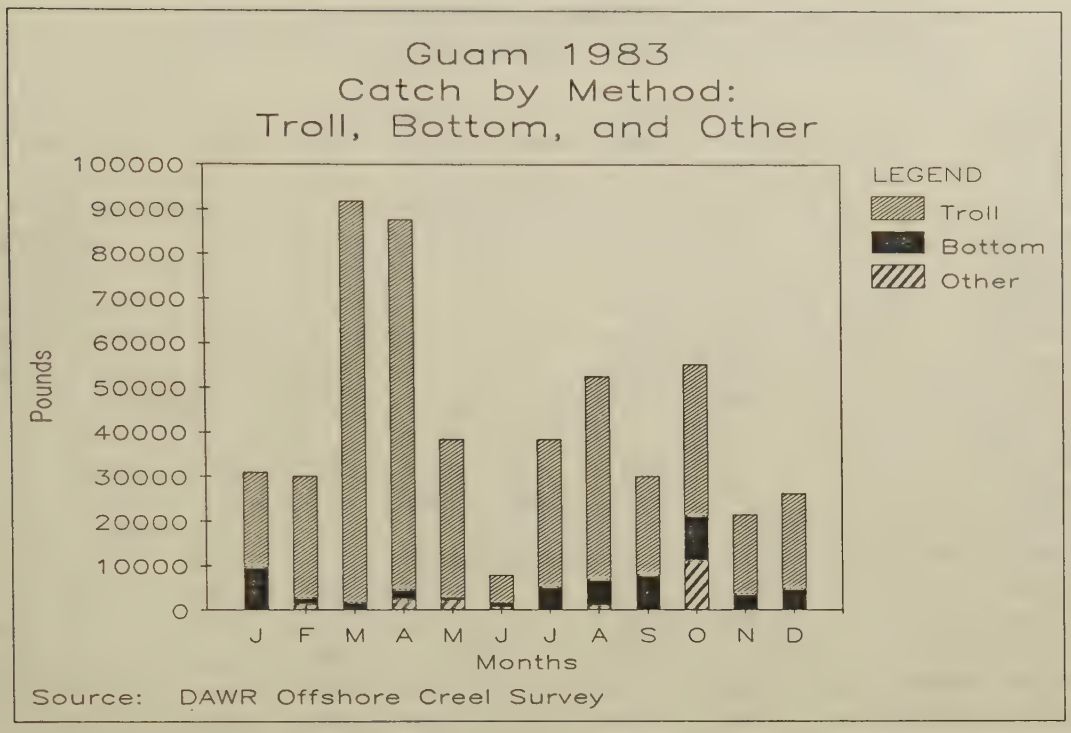


Figure 14.2

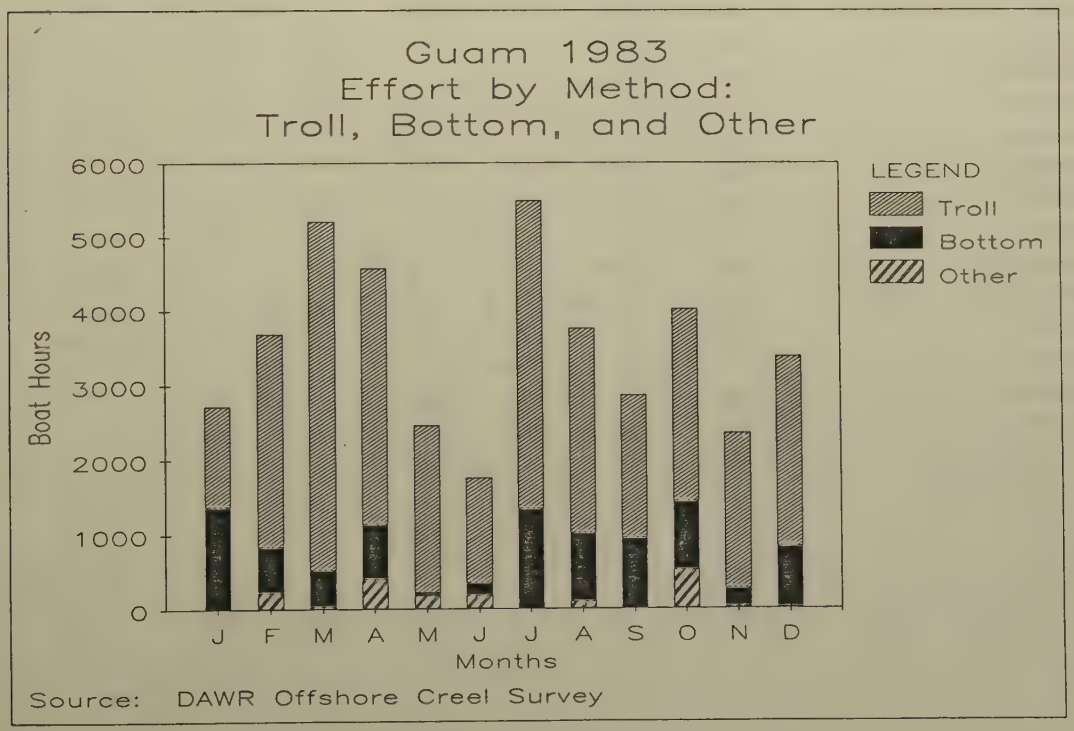


Table 17.1

GUAM DAWR ANNUAL 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	6963.1	1.43	2768.6	0.67	4194.5	7.91	0	0
MORAY EELS	142.6	0.03	0	0	0	0	142.6	0.69
LIZARDFISH	3.1	0	0	0	3.1	0.01	0	0
NEEDLEFISH	56.4	0.01	0	0	0	0	56.4	0.27
SQUIRRELFISH	1048.6	0.22	0	0	77.6	0.15	971.0	4.66
GROUPER	4179.5	0.86	0	0	3971.4	7.49	208.1	1.00
BIGEYES	36.4	0.01	0	0	27.0	0.05	9.4	0.05
CARDINALFISH	6.5	0	0	0	0	0	6.5	0.03
JACKS	3673.0	0.75	284.4	0.07	2917.8	5.51	470.8	2.26
RAINBOW RUNNER	455.4	0.09	329.9	0.08	125.5	0.24	0	0
BIGEYE SCAD (AKULE)	11072.6	2.27	0	0	0	0	11072.6	53.19
DOLPHINFISH (MAHIMAHI)	128129.5	26.28	128129.5	30.97	0	0	0	0
SNAPPERS	2314.6	0.47	0	0	2124.6	4.01	190.0	0.91
LEHI (SILVERMOUTH)	2725.5	0.56	0	0	2725.5	5.14	0	0
UKU (JOBFISH)	1329.8	0.27	0	0	1329.8	2.51	0	0
EHU (PINK SNAPPER)	1147.1	0.24	0	0	1147.1	2.16	0	0
ONAGA (RED SNAPPER)	3808.6	0.78	0	0	3808.6	7.19	0	0
BLUE LINED SNAPPER	172.1	0.04	0	0	172.1	0.32	0	0
YELLOWTAIL KALIKALI	5782.8	1.19	0	0	5782.8	10.91	0	0
OPAKAPAKA (PINK SNAP)	1221.1	0.25	0	0	1221.1	2.30	0	0
YELLOWEYE OPAKAPAKA	4341.8	0.89	0	0	4341.8	8.19	0	0
KALIKALI (PINK SNAPPER)	764.3	0.16	0	0	764.3	1.44	0	0
GINDAI (FLOWER SNAPPER)	1632.4	0.33	0	0	1632.4	3.08	0	0
BREAM	21.1	0	0	0	21.1	0.04	0	0
SWEETLIPS	42.1	0.01	0	0	0	0	42.1	0.20
EMPERORS	11291.1	2.32	0	0	11281.2	21.28	9.9	0.05
GOATFISH	835.2	0.17	0	0	602.3	1.14	232.8	1.12
SWEEPERS	16.0	0	0	0	0	0	16.0	0.08
RUDDERFISH	350.1	0.07	0	0	0	0	350.1	1.68
BARRACUDA	6858.8	1.41	6643.8	1.61	0	0	215.0	1.03
WRASSE	939.3	0.19	0	0	628.6	1.19	310.7	1.49
PARROTFISH	877.8	0.18	0	0	0	0	877.8	4.22
SURGEONFISH AND TANGS	1310.4	0.27	0	0	710.4	1.34	600.0	2.88
OILFISH	73.5	0.02	73.5	0.02	0	0	0	0
WAHOO	89010.0	18.26	89010.0	21.51	0	0	0	0
KAWAKAWA	499.2	0.10	499.2	0.12	0	0	0	0
DOGTOOTH TUNA	1521.3	0.31	1227.5	0.30	0	0	293.8	1.41
SKIPJACK TUNA	85008.4	17.44	85008.4	20.55	0	0	0	0
YELLOWFIN TUNA	65598.3	13.45	65598.3	15.85	0	0	0	0
SAILFISH	3819.7	0.78	3819.7	0.92	0	0	0	0
BLUE MARLIN	30358.7	6.23	30358.7	7.34	0	0	0	0
TRIGGERFISH	1189.6	0.24	0	0	1069.7	2.02	119.9	0.58
ASSORTED BOTTOM FISH	2153.8	0.44	0	0	2153.8	4.06	0	0

Table 17.1 (continue)

GUAM DAWR ANNUAL 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
ASSORTED REEF FISH	3470.2	0.71	0	0	0	0	3470.2	16.67
MOLLUSKS	194.5	0.04	0	0	0	0	194.5	0.93
CUTTLEFISH	11.2	0	0	0	0	0	11.2	0.05
OCTOPUS	1085.6	0.22	0	0	168.0	0.32	917.6	4.41
SPINY LOBSTERS	26.3	0.01	0	0	0	0	26.3	0.13
TOTAL ALL SPECIES:	487569.1	100.00	413751.6	84.86	53002.3	10.87	20815.2	4.27

Table 17.2

GUAM DAWR JANUARY 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
SQUIRRELFISH	67.5	0.22	0	0	67.5	0.71
GROUPER	342.1	1.10	0	0	342.1	3.61
JACKS	141.2	0.46	0	0	141.2	1.49
RAINBOW RUNNER	63.2	0.20	63.2	0.29	0	0
DOLPHINFISH (MAHIMAHI)	9634.8	31.05	9634.8	44.68	0	0
SNAPPERS	549.2	1.77	0	0	549.2	5.80
LEHI (SILVERMOUTH)	334.2	1.08	0	0	334.2	3.53
EHU (PINK SNAPPER)	643.4	2.07	0	0	643.4	6.80
ONAGA (RED SNAPPER)	3577.9	11.53	0	0	3577.9	37.79
YELLOWTAIL KALIKALI	1499.4	4.83	0	0	1499.4	15.84
OPAKAPAKA (PINK SNAP)	282.5	0.91	0	0	282.5	2.98
YELLOWEYE OPAKAPAKA	160.8	0.52	0	0	160.8	1.70
KALIKALI (PINK SNAPPER)	965.1	3.11	0	0	965.1	10.19
GINDAI (FLOWER SNAPPER)	564.1	1.82	0	0	564.1	5.96
EMPERORS	120.8	0.39	0	0	120.8	1.28
BARRACUDA	230.8	0.74	230.8	1.07	0	0
WAHOO	4431.8	14.28	4431.8	20.55	0	0
DOGTOOTH TUNA	572.1	1.84	572.1	2.65	0	0
SKIPJACK TUNA	1088.3	3.51	1088.3	5.05	0	0
YELLOWFIN TUNA	5541.3	17.86	5541.3	25.70	0	0
TRIGGERFISH	218.9	0.71	0	0	218.9	2.31
TOTAL ALL SPECIES:	31029.5	100.00	21562.3	69.49	9467.2	30.51

Table 17.3

GUAM DAWR FEBRUARY 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	93.6	0.31	0	0	0	0	93.6	6.82
GROUPER	602.3	2.00	0	0	176.9	14.74	425.4	31.01
JACKS	195.1	0.65	0	0	195.1	16.26	0	0
RAINBOW RUNNER	114.8	0.38	114.8	0.42	0	0	0	0
DOLPHINFISH (MAHIMAHI)	18429.3	61.05	18429.3	66.74	0	0	0	0
SNAPPERS	92.1	0.31	0	0	0	0	92.1	6.71
UKU (JOBFISH)	174.7	0.58	0	0	174.7	14.56	0	0
YELLOWTAIL KALIKALI	14.5	0.05	0	0	14.5	1.21	0	0
YELLOWEYE OPAKAPAKA	9.7	0.03	0	0	9.7	0.81	0	0
SWEETLIPS	95.0	0.31	0	0	0	0	95.0	6.93
EMPERORS	421.5	1.40	0	0	421.5	35.13	0	0
GOATFISH	125.6	0.42	0	0	71.5	5.96	54.1	3.94
WRASSE	127.1	0.42	0	0	67.2	5.60	59.9	4.37
PARROTFISH	175.4	0.58	0	0	0	0	175.4	12.79
SURGEONFISH AND TANGS	317.2	1.05	0	0	0	0	317.2	23.12
WAHOO	3891.3	12.89	3891.3	14.09	0	0	0	0
SKIPJACK TUNA	5039.5	16.69	5039.5	18.25	0	0	0	0
YELLOWFIN TUNA	140.3	0.46	140.3	0.51	0	0	0	0
TRIGGERFISH	68.8	0.23	0	0	68.8	5.73	0	0
SPINY LOBSTERS	59.2	0.20	0	0	0	0	59.2	4.32
TOTAL ALL SPECIES:	30187.1	100.00	27615.2	91.48	1199.9	3.97	1372.0	4.54

Table 17.4

GUAM DAWR MARCH 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
MORAY EELS	130.3	0.14	0	0	0	0	130.3	43.48
SQUIRRELFISH	29.6	0.03	0	0	0	0	29.6	9.88
GROUPER	82.2	0.09	0	0	82.2	6.41	0	0
DOLPHINFISH (MAHIMAHI)	48233.7	52.46	48233.7	53.38	0	0	0	0
SNAPPERS	88.0	0.10	0	0	7.6	0.59	80.4	26.81
UKU (JOBFISH)	57.1	0.06	0	0	57.1	4.45	0	0
YELLOWTAIL KALIKALI	268.0	0.29	0	0	268.0	20.90	0	0
OPAKAPAKA (PINK SNAP)	30.4	0.03	0	0	30.4	2.37	0	0
YELLOWEYE OPAKAPAKA	86.4	0.09	0	0	86.4	6.74	0	0
GINDAI (FLOWER SNAPPER)	10.7	0.01	0	0	10.7	0.83	0	0
EMPERORS	95.2	0.10	0	0	95.2	7.42	0	0
GOATFISH	9.5	0.01	0	0	9.5	0.74	0	0
RUDDERFISH	26.8	0.03	0	0	0	0	26.8	8.94
BARRACUDA	1396.5	1.52	1396.5	1.55	0	0	0	0
WRASSE	13.3	0.01	0	0	13.3	1.04	0	0
PARROTFISH	4.8	0.01	0	0	0	0	4.8	1.61
SURGEONFISH AND TANGS	27.9	0.03	0	0	0	0	27.9	9.29
OILFISH	13.4	0.01	13.4	0.01	0	0	0	0
WAHOO	26881.5	29.24	26881.5	29.75	0	0	0	0
KAWAKAWA	120.3	0.13	120.3	0.13	0	0	0	0
DOGTOOTH TUNA	83.5	0.09	83.5	0.09	0	0	0	0
SKIPJACK TUNA	10935.0	11.89	10935.0	12.10	0	0	0	0
YELLOWFIN TUNA	1881.0	2.05	1881.0	2.08	0	0	0	0
SAILFISH	818.5	0.89	818.5	0.91	0	0	0	0
TRIGGERFISH	43.4	0.05	0	0	43.4	3.38	0	0
ASSORTED BOTTOM FISH	578.5	0.63	0	0	578.5	45.12	0	0
TOTAL ALL SPECIES:	91945.6	100.00	90363.5	98.28	1282.3	1.39	299.8	0.33

Table 17.5

GUAM DAWR APRIL 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	153.5	0.17	0	0	153.5	7.53	0	0
JACKS	373.4	0.43	237.3	0.28	136.0	6.67	0	0
BIGEYE SCAD (AKULE)	2063.6	2.35	0	0	0	0	2063.6	85.52
DOLPHINFISH (MAHIMAHI)	43594.7	49.63	43594.7	52.28	0	0	0	0
SNAPPERS	244.8	0.28	0	0	244.8	12.01	0	0
UKU (JOBFISH)	196.0	0.22	0	0	196.0	9.61	0	0
YELLOWTAIL KALIKALI	26.7	0.03	0	0	26.7	1.31	0	0
YELLOWEYE OPAKAPAKA	26.7	0.03	0	0	26.7	1.31	0	0
GINDAI (FLOWER SNAPPER)	9.2	0.01	0	0	9.2	0.45	0	0
EMPERORS	915.8	1.04	0	0	915.8	44.91	0	0
GOATFISH	32.3	0.04	0	0	32.3	1.58	0	0
BARRACUDA	1597.3	1.82	1597.3	1.92	0	0	0	0
WRASSE	66.9	0.08	0	0	66.9	3.28	0	0
SURGEONFISH AND TANGS	24.4	0.03	0	0	24.4	1.20	0	0
OILFISH	96.2	0.11	96.2	0.12	0	0	0	0
WAHOO	11822.4	13.46	11822.4	14.18	0	0	0	0
KAWAKAWA	70.6	0.08	70.6	0.08	0	0	0	0
DOGTOOTH TUNA	628.6	0.72	628.6	0.75	0	0	0	0
SKIPJACK TUNA	18782.4	21.38	18782.4	22.53	0	0	0	0
YELLOWFIN TUNA	4278.6	4.87	4278.6	5.13	0	0	0	0
SAILFISH	2270.8	2.59	2270.8	2.72	0	0	0	0
TRIGGERFISH	206.6	0.24	0	0	206.6	10.13	0	0
ASSORTED REEF FISH	349.4	0.40	0	0	0	0	349.4	14.48
TOTAL ALL SPECIES:	87831.1	100.00	83379.1	94.93	2039.0	2.32	2413.0	2.75

Table 17.6

GUAM DAWR MAY 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	120.1	0.31	0	0	0	0	120.1	4.97
JACKS	407.9	1.06	407.9	1.14	0	0	0	0
DOLPHINFISH (MAHIMAHI)	19209.0	49.86	19209.0	53.54	0	0	0	0
GOATFISH	81.9	0.21	0	0	0	0	81.9	3.39
SWEEPERS	21.8	0.06	0	0	0	0	21.8	0.90
RUDDERFISH	395.7	1.03	0	0	0	0	395.7	16.38
BARRACUDA	727.2	1.89	727.2	2.03	0	0	0	0
WRASSE	282.7	0.73	0	0	0	0	282.7	11.70
PARROTFISH	122.8	0.32	0	0	0	0	122.8	5.08
SURGEONFISH AND TANGS	642.8	1.67	0	0	211.6	89.87	431.1	17.85
WAHOO	1679.1	4.36	1679.1	4.68	0	0	0	0
KAWAKAWA	230.6	0.60	230.6	0.64	0	0	0	0
SKIPJACK TUNA	11387.0	29.56	11387.0	31.74	0	0	0	0
YELLOWFIN TUNA	2234.8	5.80	2234.8	6.23	0	0	0	0
TRIGGERFISH	23.9	0.06	0	0	23.9	10.13	0	0
ASSORTED REEF FISH	746.2	1.94	0	0	0	0	746.2	30.89
MOLLUSKS	198.1	0.51	0	0	0	0	198.1	8.20
CUTTLEFISH	15.3	0.04	0	0	0	0	15.3	0.63
TOTAL ALL SPECIES:	38526.9	100.00	35875.7	93.12	235.5	0.61	2415.7	6.27

Table 17.7

GUAM DAWR JUNE 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	140.2	1.78	0	0	0	0	140.2	15.64
GROUPER	29.0	0.37	0	0	0	0	29.0	3.23
GLASSEYED SNAPPER	12.6	0.16	0	0	0	0	12.6	1.40
JACKS	15.0	0.19	0	0	15.0	2.55	0	0
RAINBOW RUNNER	42.7	0.54	0	0	42.7	7.30	0	0
DOLPHINFISH (MAHIMAHI)	919.8	11.67	919.8	14.37	0	0	0	0
SNAPPERS	6.4	0.08	0	0	6.4	1.09	0	0
UKU (JOBFISH)	115.3	1.46	0	0	115.3	19.71	0	0
OPAKAPAKA (PINK SNAP)	96.1	1.22	0	0	96.1	16.42	0	0
YELLOWEYE OPAKAPAKA	269.1	3.41	0	0	269.1	45.99	0	0
GINDAI (FLOWER SNAPPER)	8.5	0.11	0	0	8.5	1.46	0	0
EMPERORS	24.2	0.31	0	0	17.1	2.92	7.2	0.80
GOATFISH	96.7	1.23	0	0	0	0	96.7	10.78
WRASSE	75.4	0.96	0	0	0	0	75.4	8.41
PARROTFISH	535.7	6.80	0	0	0	0	535.7	59.74
SURGEONFISH AND TANGS	15.0	0.19	0	0	15.0	2.55	0	0
WAHOO	299.3	3.80	299.3	4.68	0	0	0	0
SKIPJACK TUNA	3022.4	38.34	3022.4	47.21	0	0	0	0
YELLOWFIN TUNA	953.6	12.09	953.6	14.89	0	0	0	0
BLUE MARLIN	1207.0	15.31	1207.0	18.85	0	0	0	0
TOTAL ALL SPECIES:	7884.2	100.00	6402.1	81.20	585.2	7.42	896.8	11.37

Table 17.8

GUAM DAWR JULY 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
SQUIRRELFISH	24.2	0.06	0	0	24.2	0.47
GROUPER	91.0	0.24	0	0	91.0	1.78
JACKS	150.2	0.39	0	0	150.2	2.93
RAINBOW RUNNER	185.1	0.48	185.1	0.55	0	0
DOLPHINFISH (MAHIMAHI)	1308.6	3.39	1308.6	3.91	0	0
SNAPPERS	310.5	0.80	0	0	310.5	6.07
EHU (PINK SNAPPER)	391.3	1.01	0	0	391.3	7.65
BLUE LINED SNAPPER	9.5	0.02	0	0	9.5	0.19
YELLOWTAIL KALIKALI	460.0	1.19	0	0	460.0	8.99
OPAKAPAKA (PINK SNAP)	442.2	1.15	0	0	442.2	8.64
YELLOWEYE OPAKAPAKA	22.3	0.06	0	0	22.3	0.44
GINDAI (FLOWER SNAPPER)	428.8	1.11	0	0	428.8	8.38
EMPERORS	2339.6	6.06	0	0	2339.6	45.72
BARRACUDA	803.4	2.08	803.4	2.40	0	0
WRASSE	21.0	0.05	0	0	21.0	0.41
WAHOO	2430.5	6.30	2430.5	7.26	0	0
SKIPJACK TUNA	15305.2	39.67	15305.2	45.74	0	0
YELLOWFIN TUNA	7671.6	19.88	7671.6	22.92	0	0
SAILFISH	54.7	0.14	54.7	0.16	0	0
BLUE MARLIN	5705.6	14.79	5705.6	17.05	0	0
TRIGGERFISH	83.4	0.22	0	0	83.4	1.63
ASSORTED BOTTOM FISH	222.7	0.58	0	0	222.7	4.35
OCTOPUS	120.9	0.31	0	0	120.9	2.36
TOTAL ALL SPECIES:	38582.2	100.00	33464.7	86.74	5117.5	13.26

Table 17.9

GUAM DAWR AUGUST 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	3218.7	6.12	3218.7	7.03	0	0	0	0
LIZARDFISH	3.0	0.01	0	0	3.0	0.05	0	0
GROUPER	886.2	1.68	0	0	886.2	15.44	0	0
JACKS	331.7	0.63	0	0	331.7	5.78	0	0
DOLPHINFISH (MAHIMAHI)	862.3	1.64	862.3	1.88	0	0	0	0
SNAPPERS	39.6	0.08	0	0	39.6	0.69	0	0
UKU (JOBFISH)	273.9	0.52	0	0	273.9	4.77	0	0
BLUE LINED SNAPPER	20.7	0.04	0	0	20.7	0.36	0	0
YELLOWTAIL KALIKALI	340.9	0.65	0	0	340.9	5.94	0	0
OPAKAPAKA (PINK SNAP)	18.3	0.03	0	0	18.3	0.32	0	0
YELLOWEYE OPAKAPAKA	12.2	0.02	0	0	12.2	0.21	0	0
EMPERORS	2986.1	5.68	0	0	2986.1	52.04	0	0
GOATFISH	155.2	0.30	0	0	155.2	2.70	0	0
BARRACUDA	755.1	1.44	755.1	1.65	0	0	0	0
WRASSE	294.0	0.56	0	0	294.0	5.12	0	0
SURGEONFISH AND TANGS	42.6	0.08	0	0	42.6	0.74	0	0
WAHOO	9537.1	18.13	9537.1	20.83	0	0	0	0
KAWAKAWA	111.9	0.21	111.9	0.24	0	0	0	0
SKIPJACK TUNA	9830.8	18.69	9830.8	21.47	0	0	0	0
YELLOWFIN TUNA	15764.7	29.97	15764.7	34.43	0	0	0	0
SAILFISH	1743.3	3.31	1743.3	3.81	0	0	0	0
BLUE MARLIN	3962.1	7.53	3962.1	8.65	0	0	0	0
TRIGGERFISH	150.9	0.29	0	0	150.9	2.63	0	0
ASSORTED BOTTOM FISH	182.6	0.35	0	0	182.6	3.18	0	0
ASSORTED REEF FISH	920.1	1.75	0	0	0	0	920.1	85.12
OCTOPUS	160.8	0.31	0	0	0	0	160.8	14.88
TOTAL ALL SPECIES:	52604.9	100.00	45786.1	87.04	5737.9	10.91	1080.9	2.05

Table 17.10

GUAM DAWR SEPTEMBER 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	3152.6	10.44	0	0	3152.6	40.53	0	0
NEEDLEFISH	46.0	0.15	0	0	0	0	46.0	100.00
GROUPER	930.5	3.08	0	0	930.5	11.96	0	0
JACKS	83.3	0.28	0	0	83.3	1.07	0	0
SNAPPERS	37.8	0.13	0	0	37.8	0.49	0	0
UKU (JOBFISH)	103.6	0.34	0	0	103.6	1.33	0	0
YELLOWTAIL KALIKALI	289.6	0.96	0	0	289.6	3.72	0	0
OPAKAPAKA (PINK SNAP)	157.6	0.52	0	0	157.6	2.03	0	0
YELLOWEYE OPAKAPAKA	49.5	0.16	0	0	49.5	0.64	0	0
EMPERORS	1960.5	6.49	0	0	1960.5	25.20	0	0
BARRACUDA	238.7	0.79	238.7	1.07	0	0	0	0
WRASSE	18.0	0.06	0	0	18.0	0.23	0	0
SURGEONFISH AND TANGS	350.2	1.16	0	0	350.2	4.50	0	0
WAHOO	4890.2	16.20	4890.2	21.86	0	0	0	0
SKIPJACK TUNA	7761.8	25.71	7761.8	34.70	0	0	0	0
YELLOWFIN TUNA	4114.4	13.63	4114.4	18.39	0	0	0	0
BLUE MARLIN	5364.1	17.77	5364.1	23.98	0	0	0	0
TRIGGERFISH	105.4	0.35	0	0	105.4	1.35	0	0
ASSORTED BOTTOM FISH	540.4	1.79	0	0	540.4	6.95	0	0
TOTAL ALL SPECIES:	30194.3	100.00	22369.2	74.08	7779.0	25.76	46.0	0.15

Table 17.11

GUAM DAWR OCTOBER 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	356.8	0.64	0	0	0	0	356.8	3.16
GROUPER	53.0	0.10	0	0	53.0	0.53	0	0
CARDINALFISH	3.4	0.01	0	0	0	0	3.4	0.03
JACKS	1321.3	2.39	0	0	862.9	8.71	458.4	4.06
BIGEYE SCAD (AKULE)	9491.6	17.15	0	0	0	0	9491.6	84.12
DOLPHINFISH (MAHIMAHI)	480.2	0.87	480.2	1.41	0	0	0	0
SNAPPERS	516.5	0.93	0	0	507.6	5.12	8.9	0.08
LEHI (SILVERMOUTH)	2184.8	3.95	0	0	2184.8	22.05	0	0
UKU (JOBFISH)	11.0	0.02	0	0	11.0	0.11	0	0
ONAGA (RED SNAPPER)	77.2	0.14	0	0	77.2	0.78	0	0
BLUE LINED SNAPPER	33.1	0.06	0	0	33.1	0.33	0	0
YELLOWTAIL KALIKALI	2526.8	4.57	0	0	2526.8	25.50	0	0
YELLOWEYE OPAKAPAKA	2788.3	5.04	0	0	2788.3	28.14	0	0
GINDAI (FLOWER SNAPPER)	485.5	0.88	0	0	485.5	4.90	0	0
BREAM	18.8	0.03	0	0	18.8	0.19	0	0
EMPERORS	245.0	0.44	0	0	245.0	2.47	0	0
GOATFISH	99.2	0.18	0	0	79.3	0.80	20.0	0.18
RUDDERFISH	6.5	0.01	0	0	0	0	6.5	0.06
BARRACUDA	885.9	1.60	662.6	1.94	0	0	223.3	1.98
WRASSE	51.2	0.09	0	0	35.9	0.36	15.4	0.14
PARROTFISH	93.2	0.17	0	0	0	0	93.2	0.83
SURGEONFISH AND TANGS	37.2	0.07	0	0	0	0	37.2	0.33
WAHOO	5094.8	9.21	5094.8	14.92	0	0	0	0
DOGTOOTH TUNA	25.1	0.05	0	0	0	0	25.1	0.22
SKIPJACK TUNA	5269.1	9.52	5269.1	15.43	0	0	0	0
YELLOWFIN TUNA	14907.8	26.94	14907.8	43.66	0	0	0	0
BLUE MARLIN	7734.1	13.98	7734.1	22.65	0	0	0	0
TRIGGERFISH	99.9	0.18	0	0	0	0	99.9	0.89
ASSORTED REEF FISH	133.9	0.24	0	0	0	0	133.9	1.19
OCTOPUS	309.7	0.56	0	0	0	0	309.7	2.75
TOTAL ALL SPECIES:	55341.1	100.00	34148.6	61.71	9909.0	17.91	11283.5	20.39

Table 17.12

GUAM DAWR NOVEMBER 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	31.6	0.15	0	0	0	0	31.6	18.66
JACKS	81.7	0.38	0	0	81.7	2.50	0	0
DOLPHINFISH (MAHIMAHI)	2066.7	9.59	2066.7	11.41	0	0	0	0
SNAPPERS	817.1	3.79	0	0	817.1	25.00	0	0
EHU (PINK SNAPPER)	335.0	1.55	0	0	335.0	10.25	0	0
ONAGA (RED SNAPPER)	1946.0	9.03	0	0	1946.0	59.54	0	0
EMPERORS	40.9	0.19	0	0	40.9	1.25	0	0
GOATFISH	85.7	0.40	0	0	47.7	1.46	38.0	22.49
BARRACUDA	521.3	2.42	521.3	2.88	0	0	0	0
WRASSE	4.4	0.02	0	0	0	0	4.4	2.63
PARROTFISH	89.0	0.41	0	0	0	0	89.0	52.63
SURGEONFISH AND TANGS	6.1	0.03	0	0	0	0	6.1	3.59
WAHOO	9327.5	43.27	9327.5	51.48	0	0	0	0
KAWAKAWA	69.7	0.32	69.7	0.38	0	0	0	0
DOGTOOTH TUNA	51.4	0.24	51.4	0.28	0	0	0	0
SKIPJACK TUNA	2529.2	11.73	2529.2	13.96	0	0	0	0
YELLOWFIN TUNA	2562.2	11.89	2562.2	14.14	0	0	0	0
BLUE MARLIN	991.1	4.60	991.1	5.47	0	0	0	0
TOTAL ALL SPECIES:	21556.5	100.00	18119.1	84.05	3268.3	15.16	169.1	0.78

Table 17.13

GUAM DAWR DECEMBER 1983
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	1148.5	4.36	0	0	1148.5	25.87	0	0
GLASSEYED SNAPPER	39.3	0.15	0	0	39.3	0.88	0	0
JACKS	816.0	3.10	0	0	816.0	18.38	0	0
DOLPHINFISH (MAHIMAHI)	3437.7	13.04	3437.7	15.85	0	0	0	0
EHU (PINK SNAPPER)	144.0	0.55	0	0	144.0	3.24	0	0
BLUE LINED SNAPPER	146.6	0.56	0	0	146.6	3.30	0	0
YELLOWTAIL KALIKALI	87.3	0.33	0	0	87.3	1.97	0	0
GINDAI (FLOWER SNAPPER)	232.1	0.88	0	0	232.1	5.23	0	0
EMPERORS	1310.0	4.97	0	0	1310.0	29.51	0	0
GOATFISH	272.3	1.03	0	0	272.3	6.13	0	0
BARRACUDA	227.8	0.86	227.8	1.05	0	0	0	0
WRASSE	69.8	0.26	0	0	69.8	1.57	0	0
WAHOO	8016.1	30.41	8016.1	36.97	0	0	0	0
DOGTOOTH TUNA	118.4	0.45	118.4	0.55	0	0	0	0
SKIPJACK TUNA	2865.6	10.87	2865.6	13.21	0	0	0	0
YELLOWFIN TUNA	4320.7	16.39	4320.7	19.93	0	0	0	0
BLUE MARLIN	2698.2	10.24	2698.2	12.44	0	0	0	0
TRIGGERFISH	89.0	0.34	0	0	89.0	2.01	0	0
ASSORTED BOTTOM FISH	83.8	0.32	0	0	83.8	1.89	0	0
ASSORTED REEF FISH	238.1	0.90	0	0	0	0	238.1	100.00
TOTAL ALL SPECIES:	26361.1	100.00	21684.4	82.26	4438.7	16.84	238.1	0.90

Table 18.1

GUAM DAWR JANUARY 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	59010.5	24	2846.8	46	521.1	55	8193.7	52	1535.2	58	25.6	62*
BOTTOM FISH	3415.5	63	494.1	59	139.5	50	1347.7	64	364.5	59	5.9	71*
SPEAR SNORKEL	182.5	95	76.1	95	15.2	95	456.5	95	91.3	95	2.4	0*
SPEAR SCUBA	457.6	95	60.9	95	15.2	95	60.9	95	15.2	95	7.5	0*
TOTAL:	63066.1	26	3477.9	48	601.4	52	10058.8	54	1635.3	58	21.7	62

Table 18.2

GUAM DAWR FEBRUARY 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	58742.9	71	5210.8	50	778.0	38	16367.5	49	2581.5	36	7.9	56
BOTTOM FISH	1165.7	39	300.8	56	153.1	54	642.3	57	278.5	46	5.9	86*
TOTAL:	59908.6	71	5511.6	50	756.0	30	17009.8	48	2492.3	29	7.3	54

Table 18.3

GUAM DAWR MARCH 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	61690.5	17	4202.8	25	720.6	24	14023.1	36	2388.2	35	14.0	29*
BOTTOM FISH	4810.2	76	376.3	72	60.4	65	895.3	74	135.8	65	11.6	0*
SPEAR SNORKEL	1147.3	95	11.5	95	22.9	95	45.9	95	91.7	95	100.1	0*
SPEAR SCUBA	65.7	95	68.8	95	22.9	95	275.1	95	91.7	95	1.0	0*
TOTAL:	67713.7	19	4659.3	28	704.2	26	15239.3	37	2285.3	35	14.5	23

* Not enough data to properly compute Coefficient of Variation (CV).

Table 18.4

GUAM DAWR APRIL 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	66669.4	53	4015.4	40	676.7	39	11734.9	36	2085.9	40	17.9	14
BOTTOM FISH	4233.7	48	653.0	10	158.6	20	1599.0	22	378.8	25	6.0	45
SPEAR SNORKEL	202.3	89	40.5	89	6.7	89	202.4	89	33.7	89	5.0	0*
TOTAL:	71105.5	52	4708.9	34	694.3	31	13536.3	28	2157.1	31	15.3	14

Table 18.5

GUAM DAWR MAY 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	23885.3	33	2537.4	6	601.3	9	8292.6	8	1960.8	13	9.2	12
BOTTOM FISH	6119.7	29	674.0	11	178.6	26	2188.4	22	596.2	38	7.5	30
SPEAR SNORKEL	1179.5	2	61.3	3	13.7	7	215.5	15	47.5	6	19.3	2*
SPEAR SCUBA	1038.8	39	136.1	42	51.7	25	136.1	42	51.7	25	7.8	5*
TOTAL:	32223.2	30	3408.8	7	675.1	7	10832.5	10	2043.1	10	9.0	10

Table 18.6

GUAM DAWR JUNE 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	63888.5	14	2873.1	9	604.3	4	7732.8	14	1641.7	6	21.1	32
BOTTOM FISH	5181.7	50	894.5	33	199.8	22	2174.0	24	493.5	14	4.9	22
SPEAR SNORKEL	500.1	10	42.6	27	16.7	10	213.0	27	83.4	10	12.5	28*
SPEAR SCUBA	1487.5	65	118.7	65	32.1	65	219.1	71	54.4	67	12.4	0*
OTHER	53.8	88	8.3	88	18.5	88	20.8	88	46.2	88	6.5	0*
TOTAL:	71111.5	17	3937.2	4	677.8	3	10359.7	11	1799.8	10	16.1	12

* Not enough data to properly compute Coefficient of Variation (CV).

Table 18.7

GUAM DAWR JULY 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	24777.6	10	2741.3	9	942.3	11	7816.0	11	1363.8	23	12.5	22
BOTTOM FISH	3437.9	83	290.4	68	153.6	60	626.1	68	327.4	58	6.1	177*
SPEAR SNORKEL	1303.6	95	125.4	95	41.8	95	438.8	95	146.3	95	10.4	0*
SPEAR SCUBA	381.1	79	48.7	70	30.7	65	66.7	74	39.7	67	6.4	0*
TOTAL:	29900.2	14	3205.7	14	1077.8	11	8947.5	15	1633.6	21	12.2	17

Table 18.8

GUAM DAWR AUGUST 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	44987.2	5	2444.9	14	457.7	12	5711.1	6	1075.6	3	19.3	24
BOTTOM FISH	5340.8	15	1297.1	49	349.3	9	3742.2	48	1108.0	9	6.5	52
SPEAR SNORKEL	1619.6	87	120.0	87	26.7	87	420.0	87	93.3	87	13.5	0*
TOTAL:	51947.7	3	3862.0	9	709.8	10	9873.3	20	1914.5	7	15.0	3

Table 18.9

GUAM DAWR SEPTEMBER 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	39064.9	39	2578.9	11	601.8	12	6190.5	8	1421.9	8	13.5	35
BOTTOM FISH	12472.4	9	1396.4	10	394.5	2	3772.2	10	1048.1	3	9.2	12
SPEAR SNORKEL	1527.6	54	192.1	4	37.0	29	1052.4	4	209.8	36	8.2	90*
SPEAR SCUBA	31.7	89	37.5	89	6.3	89	150.0	89	25.0	89	.8	0*
TOTAL:	53096.6	30	4204.8	9	737.8	8	11165.1	7	1971.0	9	11.7	23

* Not enough data to properly compute Coefficient of Variation (CV).

Table 18.10

GUAM DAWR OCTOBER 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	20663.1	54	2622.1	27	568.1	22	6908.8	20	1521.7	16	8.2	30
BOTTOM FISH	1450.6	67	318.1	49	145.3	46	793.8	50	362.4	48	4.2	59
ATULAI JIG	11063.1	43	404.3	41	114.4	39	1212.8	41	343.3	39	30.4	42*
TOTAL:	33176.8	27	3344.4	23	689.2	17	8915.3	17	1869.3	10	14.2	33

Table 18.11

GUAM DAWR NOVEMBER 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	15802.9	34	1052.0	16	344.4	14	3075.5	21	953.6	16	8.6	36
BOTTOM FISH	4161.3	47	466.9	40	92.6	29	1274.3	39	246.1	32	4.7	38*
ATULAI JIG	0	0	22.5	89	15.0	89	22.5	89	15.0	89	0	0*
SPEAR SNORKEL	45.6	90	21.9	90	14.6	90	43.7	90	29.1	90	2.1	0*
SPEAR SCUBA	3.2	89	6.8	89	10.4	89	13.7	89	20.7	89	.5	0*
TOTAL:	20013.0	35	1570.1	17	398.8	14	4429.7	21	1038.0	17	6.0	29

Table 18.12

GUAM DAWR DECEMBER 1984
OFFSHORE CREEL SURVEY EXPANSION SUMMARY

GEAR	CATCH	CV	BOAT HRS	CV	BOAT CNT	CV	PRSN HRS	CV	PRSN CNT	CV	CPUE	CV
TROLLING	69060.0	11	5929.0	9	1056.3	6	13937.8	8	2546.5	11	4.0	26
BOTTOM FISH	3563.2	18	463.1	24	147.8	24	1065.9	37	324.4	39	2.4	39
SPEAR SCUBA	618.6	90	61.9	90	20.6	90	61.9	90	20.6	90	5.0	0*
TOTAL:	73241.8	11	6454.0	7	1143.7	6	15065.6	5	2682.6	11	3.6	25

* Not enough data to properly compute Coefficient of Variation (CV).

Figure 15.1

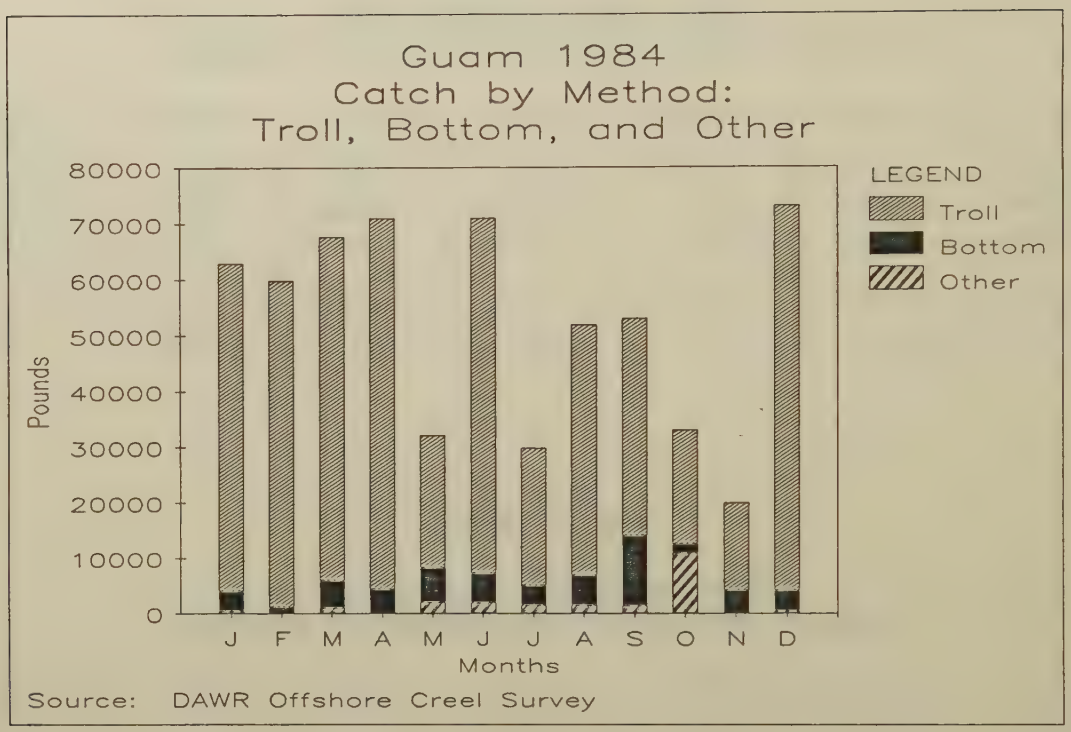


Figure 15.2

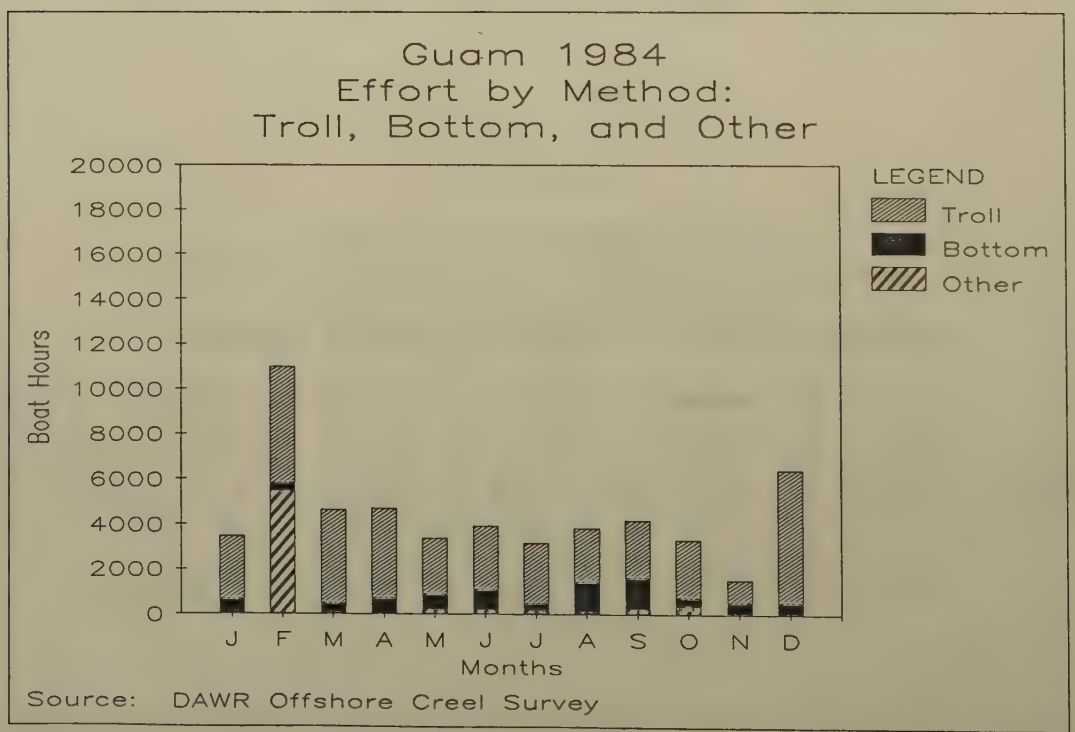


Table 19.1

GUAM DAWR ANNUAL 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	427.6	0.08	0	0	257.0	0.49	170.6	0.63
LIZARDFISH	1.9	0	0	0	1.9	0	0	0
SQUIRRELFISH	287.4	0.05	0	0	35.9	0.07	251.4	0.92
GROUPER	1812.4	0.32	0	0	1519.4	2.90	293.0	1.07
BIGEYES	4.3	0	0	0	0	0	4.3	0.02
JACKS	2245.9	0.40	369.2	0.08	1747.4	3.34	129.4	0.47
RAINBOW RUNNER	1540.8	0.28	1447.9	0.30	92.9	0.18	0	0
BIGEYE SCAD (AKULE)	15996.6	2.86	0	0	0	0	15996.6	58.67
DOLPHINFISH (MAHIMAHI)	28846.6	5.16	28846.6	6.02	0	0	0	0
SNAPPERS	827.4	0.15	0	0	765.3	1.46	62.1	0.23
LEHI (SILVERMOUTH)	321.7	0.06	0	0	321.7	0.61	0	0
UKU (JOBFISH)	841.3	0.15	0	0	841.3	1.61	0	0
EHU (PINK SNAPPER)	32.3	0.01	0	0	32.3	0.06	0	0
ONAGA (RED SNAPPER)	219.9	0.04	0	0	219.9	0.42	0	0
BLUE LINED SNAPPER	60.1	0.01	0	0	60.1	0.11	0	0
YELLOWTAIL KALIKALI	1109.6	0.20	0	0	1109.6	2.12	0	0
OPAKAPAKA (PINK SNAP)	117.4	0.02	0	0	117.4	0.22	0	0
YELLOWEYE OPAKAPAKA	484.0	0.09	0	0	484.0	0.92	0	0
GINDAI (FLOWER SNAPPER)	290.7	0.05	0	0	290.7	0.56	0	0
SWEETLIPS	104.9	0.02	0	0	0	0	104.9	0.38
EMPERORS	10140.9	1.82	0	0	10123.8	19.34	17.1	0.06
GOATFISH	261.1	0.05	0	0	240.7	0.46	20.4	0.07
RUDDERFISH	234.5	0.04	0	0	0	0	234.5	0.86
BATFISH	10.0	0	0	0	0	0	10.0	0.04
BARRACUDA	5698.7	1.02	5698.7	1.19	0	0	0	0
WRASSE	953.2	0.17	0	0	656.5	1.25	296.7	1.09
PARROTFISH	1231.9	0.22	0	0	0	0	1231.9	4.52
SURGEONFISH AND TANGS	543.6	0.10	0	0	484.4	0.93	59.2	0.22
WAHOO	56500.5	10.12	56500.5	11.80	0	0	0	0
KAWAKAWA	1397.8	0.25	1397.8	0.29	0	0	0	0
DOGTOOTH TUNA	967.7	0.17	924.9	0.19	0	0	42.8	0.16
SKIPJACK TUNA	248243.1	44.44	248243.1	51.83	0	0	0	0
YELLOWFIN TUNA	71502.1	12.80	71502.1	14.93	0	0	0	0
SAILFISH	952.0	0.17	952.0	0.20	0	0	0	0
BLUE MARLIN	63057.1	11.29	63057.1	13.17	0	0	0	0
TRIGGERFISH	301.0	0.05	0	0	301.0	0.57	0	0
ASSORTED BOTTOM FISH	32651.4	5.85	0	0	32651.4	62.37	0	0
ASSORTED REEF FISH	8287.7	1.48	0	0	0	0	8287.7	30.40
OCTOPUS	23.6	0	0	0	0	0	23.6	0.09
SPINY LOBSTERS	30.0	0.01	0	0	0	0	30.0	0.11
TOTAL ALL SPECIES:	558560.6	100.00	478939.9	85.75	52354.6	9.37	27266.1	4.88

Table 19.2

GUAM DAWR JANUARY 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	75.4	0.12	0	0	75.4	2.21	0	0
JACKS	33.2	0.05	0	0	33.2	0.97	0	0
RAINBOW RUNNER	171.0	0.27	171.0	0.29	0	0	0	0
DOLPHINFISH (MAHIMAHI)	2712.3	4.30	2712.3	4.60	0	0	0	0
SNAPPERS	79.2	0.13	0	0	79.2	2.32	0	0
YELLOWTAIL KALIKALI	7.0	0.01	0	0	7.0	0.20	0	0
EMPERORS	2864.1	4.54	0	0	2864.1	83.86	0	0
GOATFISH	60.0	0.10	0	0	60.0	1.76	0	0
WRASSE	89.0	0.14	0	0	89.0	2.61	0	0
WAHOO	8241.3	13.07	8241.3	13.97	0	0	0	0
KAWAKAWA	148.2	0.23	148.2	0.25	0	0	0	0
SKIPJACK TUNA	32081.4	50.87	32081.4	54.37	0	0	0	0
YELLOWFIN TUNA	7462.8	11.83	7462.8	12.65	0	0	0	0
BLUE MARLIN	8193.5	12.99	8193.5	13.88	0	0	0	0
TRIGGERFISH	112.7	0.18	0	0	112.7	3.30	0	0
ASSORTED BOTTOM FISH	94.9	0.15	0	0	94.9	2.78	0	0
ASSORTED REEF FISH	640.1	1.01	0	0	0	0	640.1	100.00
TOTAL ALL SPECIES:	63066.1	100.00	59010.5	93.57	3415.5	5.42	640.1	1.01

Table 19.3

GUAM DAWR FEBRUARY 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR
SQUIRRELFISH	2.9	0	0	0	2.9	0.25
GROUPER	559.7	0.93	0	0	559.7	48.01
JACKS	49.8	0.08	0	0	49.8	4.27
RAINBOW RUNNER	1683.3	2.81	1683.3	2.87	0	0
DOLPHINFISH (MAHIMAHI)	16273.5	27.16	16273.5	27.70	0	0
SNAPPERS	133.6	0.22	0	0	133.6	11.46
BLUE LINED SNAPPER	58.6	0.10	0	0	58.6	5.03
EMPERORS	91.4	0.15	0	0	91.4	7.84
GOATFISH	89.7	0.15	0	0	89.7	7.69
BARRACUDA	1451.3	2.42	1451.3	2.47	0	0
WAHOO	3577.2	5.97	3577.2	6.09	0	0
SKIPJACK TUNA	12544.0	20.94	12544.0	21.35	0	0
YELLOWFIN TUNA	23213.6	38.75	23213.6	39.52	0	0
TRIGGERFISH	46.9	0.08	0	0	46.9	4.02
ASSORTED BOTTOM FISH	133.0	0.22	0	0	133.0	11.41
TOTAL ALL SPECIES:	59908.6	100.00	58742.9	98.05	1165.7	1.95

Table 19.4

GUAM DAWR MARCH 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	8.3	0.01	0	0	8.3	0.17	0	0
JACKS	411.7	0.61	0	0	411.7	8.56	0	0
DOLPHINFISH (MAHIMAHI)	13189.9	19.48	13189.9	21.38	0	0	0	0
SNAPPERS	22.1	0.03	0	0	22.1	0.46	0	0
OPAKAPAKA (PINK SNAP)	131.8	0.19	0	0	131.8	2.74	0	0
YELLOWEYE OPAKAPAKA	265.7	0.39	0	0	265.7	5.52	0	0
GINDAI (FLOWER SNAPPER)	26.1	0.04	0	0	26.1	0.54	0	0
EMPERORS	141.6	0.21	0	0	141.6	2.94	0	0
BARRACUDA	346.4	0.51	346.4	0.56	0	0	0	0
WRASSE	1163.6	1.72	0	0	16.3	0.34	1147.3	94.58
PARROTFISH	55.6	0.08	0	0	0	0	55.6	4.58
SURGEONFISH AND TANGS	10.1	0.01	0	0	0	0	10.1	0.83
WAHOO	1678.0	2.48	1678.0	2.72	0	0	0	0
SKIPJACK TUNA	25620.0	37.84	25620.0	41.53	0	0	0	0
YELLOWFIN TUNA	20856.2	30.80	20856.2	33.81	0	0	0	0
ASSORTED BOTTOM FISH	3786.5	5.59	0	0	3786.5	78.72	0	0
TOTAL ALL SPECIES:	67713.7	100.00	61690.5	91.10	4810.2	7.10	1213.0	1.79

Table 19.5

GUAM DAWR APRIL 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	284.4	0.40	0	0	284.4	6.72	0	0
GROUPER	35.3	0.05	0	0	35.3	0.83	0	0
JACKS	325.0	0.46	0	0	325.0	7.68	0	0
DOLPHINFISH (MAHIMAHI)	2286.9	3.22	2286.9	3.43	0	0	0	0
SNAPPERS	283.5	0.40	0	0	283.5	6.70	0	0
UKU (JOBFISH)	213.1	0.30	0	0	213.1	5.03	0	0
BLUE LINED SNAPPER	4.4	0.01	0	0	4.4	0.10	0	0
EMPERORS	844.7	1.19	0	0	844.7	19.95	0	0
GOATFISH	11.6	0.02	0	0	11.6	0.27	0	0
BARRACUDA	2260.8	3.18	2260.8	3.39	0	0	0	0
WRASSE	21.3	0.03	0	0	21.3	0.50	0	0
WAHOO	2886.5	4.06	2886.5	4.33	0	0	0	0
KAWAKAWA	247.0	0.35	247.0	0.37	0	0	0	0
DOGTOOTH TUNA	207.7	0.29	207.7	0.31	0	0	0	0
SKIPJACK TUNA	45413.0	63.87	45413.0	68.12	0	0	0	0
YELLOWFIN TUNA	10591.1	14.89	10591.1	15.89	0	0	0	0
BLUE MARLIN	2776.3	3.90	2776.3	4.16	0	0	0	0
TRIGGERFISH	13.4	0.02	0	0	13.4	0.32	0	0
ASSORTED BOTTOM FISH	2197.0	3.09	0	0	2197.0	51.89	0	0
ASSORTED REEF FISH	202.3	0.28	0	0	0	0	202.3	100.00
TOTAL ALL SPECIES:	71105.5	100.00	66669.4	93.76	4233.7	5.95	202.3	0.28

Table 19.6

GUAM DAWR MAY 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SHARKS	102.2	0.32	0	0	0	0	102.2	4.61
SQUIRRELFISH	218.1	0.68	0	0	0	0	218.1	9.83
GROUPER	471.6	1.46	0	0	304.7	4.98	166.8	7.52
JACKS	55.6	0.17	0	0	0	0	55.6	2.51
RAINBOW RUNNER	32.7	0.10	32.7	0.14	0	0	0	0
DOLPHINFISH (MAHIMAHI)	754.7	2.34	754.7	3.16	0	0	0	0
SNAPPERS	124.4	0.39	0	0	124.4	2.03	0	0
UKU (JOBFISH)	325.2	1.01	0	0	325.2	5.31	0	0
YELLOWTAIL KALIKALI	37.3	0.12	0	0	37.3	0.61	0	0
GINDAI (FLOWER SNAPPER)	36.5	0.11	0	0	36.5	0.60	0	0
SWEETLIPS	49.6	0.15	0	0	0	0	49.6	2.24
EMPERORS	739.4	2.29	0	0	739.4	12.08	0	0
GOATFISH	8.5	0.03	0	0	8.5	0.14	0	0
BARRACUDA	193.1	0.60	193.1	0.81	0	0	0	0
WRASSE	77.0	0.24	0	0	45.2	0.74	31.8	1.43
PARROTFISH	572.4	1.78	0	0	0	0	572.4	25.81
SURGEONFISH AND TANGS	28.3	0.09	0	0	28.3	0.46	0	0
WAHOO	1319.2	4.09	1319.2	5.52	0	0	0	0
SKIPJACK TUNA	17292.1	53.66	17292.1	72.40	0	0	0	0
YELLOWFIN TUNA	2677.1	8.31	2677.1	11.21	0	0	0	0
BLUE MARLIN	1616.4	5.02	1616.4	6.77	0	0	0	0
TRIGGERFISH	8.5	0.03	0	0	8.5	0.14	0	0
ASSORTED BOTTOM FISH	4461.8	13.85	0	0	4461.8	72.91	0	0
ASSORTED REEF FISH	1021.7	3.17	0	0	0	0	1021.7	46.06
TOTAL ALL SPECIES:	32223.2	100.00	23885.3	74.12	6119.7	18.99	2218.2	6.88

Table 19.7

GUAM DAWR JUNE 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	168.7	0.24	0	0	22.8	0.44	145.8	7.14
GROUPER	537.7	0.76	0	0	288.0	5.56	249.7	12.23
GLASSEYED SNAPPER	4.4	0.01	0	0	0	0	4.4	0.21
JACKS	45.7	0.06	0	0	39.1	0.75	6.6	0.32
RAINBOW RUNNER	93.7	0.13	93.7	0.15	0	0	0	0
SNAPPERS	40.6	0.06	0	0	0	0	40.6	1.99
LEHI (SILVERMOUTH)	7.0	0.01	0	0	7.0	0.14	0	0
EHU (PINK SNAPPER)	35.2	0.05	0	0	35.2	0.68	0	0
GINDAI (FLOWER SNAPPER)	79.8	0.11	0	0	79.8	1.54	0	0
SWEETLIPS	82.7	0.12	0	0	0	0	82.7	4.05
EMPERORS	782.0	1.10	0	0	764.6	14.76	17.4	0.85
GOATFISH	20.3	0.03	0	0	0	0	20.3	0.99
RUDDERFISH	171.1	0.24	0	0	0	0	171.1	8.38
BATFISH	10.2	0.01	0	0	0	0	10.2	0.50
WRASSE	43.7	0.06	0	0	9.7	0.19	34.1	1.67
PARROTFISH	515.4	0.72	0	0	0	0	515.4	25.25
SURGEONFISH AND TANGS	8.2	0.01	0	0	0	0	8.2	0.40
WAHOO	783.6	1.10	783.6	1.23	0	0	0	0
KAWAKAWA	557.5	0.78	557.5	0.87	0	0	0	0
DOGTOOTH TUNA	583.3	0.82	536.1	0.84	0	0	47.2	2.31
SKIPJACK TUNA	47109.3	66.25	47109.3	73.74	0	0	0	0
YELLOWFIN TUNA	4525.0	6.36	4525.0	7.08	0	0	0	0
SAILFISH	1011.5	1.42	1011.5	1.58	0	0	0	0
BLUE MARLIN	9272.0	13.04	9272.0	14.51	0	0	0	0
TRIGGERFISH	15.8	0.02	0	0	15.8	0.31	0	0
ASSORTED BOTTOM FISH	3919.6	5.51	0	0	3919.6	75.64	0	0
ASSORTED REEF FISH	687.8	0.97	0	0	0	0	687.8	33.69
TOTAL ALL SPECIES:	71111.5	100.00	63888.5	89.84	5181.7	7.29	2041.3	2.87

Table 19.8

GUAM DAWR JULY 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
RAINBOW RUNNER	61.0	0.20	61.0	0.25	0	0	0	0
YELLOWEYE OPAKAPAKA	15.1	0.05	0	0	15.1	0.44	0	0
GINDAI (FLOWER SNAPPER)	30.5	0.10	0	0	30.5	0.89	0	0
EMPERORS	45.6	0.15	0	0	45.6	1.33	0	0
BARRACUDA	401.0	1.34	401.0	1.62	0	0	0	0
PARROTFISH	45.7	0.15	0	0	0	0	45.7	2.71
WAHOO	1657.7	5.54	1657.7	6.69	0	0	0	0
DOGTOOTH TUNA	3.1	0.01	3.1	0.01	0	0	0	0
SKIPJACK TUNA	10144.9	33.93	10144.9	40.94	0	0	0	0
YELLOWFIN TUNA	2196.7	7.35	2196.7	8.87	0	0	0	0
BLUE MARLIN	10313.2	34.49	10313.2	41.62	0	0	0	0
ASSORTED BOTTOM FISH	3346.7	11.19	0	0	3346.7	97.35	0	0
ASSORTED REEF FISH	1598.6	5.35	0	0	0	0	1598.6	94.89
OCTOPUS	40.4	0.14	0	0	0	0	40.4	2.40
TOTAL ALL SPECIES:	29900.2	100.00	24777.6	82.87	3437.9	11.50	1684.7	5.63

Table 19.9

GUAM DAWR AUGUST 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
SQUIRRELFISH	12.5	0.02	0	0	12.5	0.23	0	0
GROUPER	39.1	0.08	0	0	39.1	0.73	0	0
JACKS	1015.8	1.96	161.0	0.36	840.3	15.73	14.5	0.90
UKU (JOBFISH)	177.9	0.34	0	0	177.9	3.33	0	0
YELLOWEYE OPAKAPAKA	256.2	0.49	0	0	256.2	4.80	0	0
EMPERORS	1259.6	2.42	0	0	1259.6	23.58	0	0
RUDDERFISH	49.0	0.09	0	0	0	0	49.0	3.03
BARRACUDA	488.3	0.94	488.3	1.09	0	0	0	0
WRASSE	32.0	0.06	0	0	32.0	0.60	0	0
PARROTFISH	178.3	0.34	0	0	0	0	178.3	11.01
SURGEONFISH AND TANGS	503.7	0.97	0	0	497.5	9.32	6.2	0.38
WAHOO	564.3	1.09	564.3	1.25	0	0	0	0
KAWAKAWA	20.5	0.04	20.5	0.05	0	0	0	0
DOGTOOTH TUNA	20.5	0.04	20.5	0.05	0	0	0	0
SKIPJACK TUNA	22778.6	43.85	22778.6	50.63	0	0	0	0
YELLOWFIN TUNA	8456.5	16.28	8456.5	18.80	0	0	0	0
BLUE MARLIN	12497.5	24.06	12497.5	27.78	0	0	0	0
TRIGGERFISH	65.8	0.13	0	0	65.8	1.23	0	0
ASSORTED BOTTOM FISH	2159.8	4.16	0	0	2159.8	40.44	0	0
ASSORTED REEF FISH	1350.8	2.60	0	0	0	0	1350.8	83.40
SPINY LOBSTERS	20.8	0.04	0	0	0	0	20.8	1.28
TOTAL ALL SPECIES:	51947.7	100.00	44987.2	86.60	5340.8	10.28	1619.6	3.12

Table 9.10

GUAM DAWR SEPTEMBER 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	45.3	0.09	0	0	45.3	0.36	0	0
JACKS	191.0	0.36	0	0	191.0	1.53	0	0
RAINBOW RUNNER	94.7	0.18	94.7	0.24	0	0	0	0
SNAPPERS	20.5	0.04	0	0	0	0	20.5	1.31
UKU (JOBFISH)	87.4	0.16	0	0	87.4	0.70	0	0
ONAGA (RED SNAPPER)	220.1	0.41	0	0	220.1	1.76	0	0
YELLOWTAIL KALIKALI	971.0	1.83	0	0	971.0	7.79	0	0
GINDAI (FLOWER SNAPPER)	123.0	0.23	0	0	123.0	0.99	0	0
EMPERORS	1068.1	2.01	0	0	1068.1	8.56	0	0
GOATFISH	22.7	0.04	0	0	22.7	0.18	0	0
BARRACUDA	288.2	0.54	288.2	0.74	0	0	0	0
PARROTFISH	40.9	0.08	0	0	0	0	40.9	2.63
SURGEONFISH AND TANGS	20.5	0.04	0	0	0	0	20.5	1.31
WAHOO	2500.9	4.71	2500.9	6.40	0	0	0	0
SKIPJACK TUNA	26198.3	49.34	26198.3	67.06	0	0	0	0
YELLOWFIN TUNA	4540.7	8.55	4540.7	11.62	0	0	0	0
BLUE MARLIN	5442.2	10.25	5442.2	13.93	0	0	0	0
TRIGGERFISH	8.1	0.02	0	0	8.1	0.06	0	0
ASSORTED BOTTOM FISH	9735.8	18.34	0	0	9735.8	78.06	0	0
ASSORTED REEF FISH	1477.4	2.78	0	0	0	0	1477.4	94.75
TOTAL ALL SPECIES:	53096.6	100.00	39064.9	73.57	12472.4	23.49	1559.3	2.94

Table 19.11

GUAM DAWR OCTOBER 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	27.8	0.08	0	0	27.8	1.92	0	0
BIGEYE SCAD (AKULE)	11063.1	33.35	0	0	0	0	11063.1	100.00
SNAPPERS	9.7	0.03	0	0	9.7	0.67	0	0
EMPERORS	179.2	0.54	0	0	179.2	12.36	0	0
WAHOO	3089.4	9.31	3089.4	14.95	0	0	0	0
KAWAKAWA	16.8	0.05	16.8	0.08	0	0	0	0
SKIPJACK TUNA	11710.2	35.30	11710.2	56.67	0	0	0	0
YELLOWFIN TUNA	2421.1	7.30	2421.1	11.72	0	0	0	0
BLUE MARLIN	3425.6	10.33	3425.6	16.58	0	0	0	0
ASSORTED BOTTOM FISH	1233.9	3.72	0	0	1233.9	85.06	0	0
TOTAL ALL SPECIES:	33176.8	100.00	20663.1	62.28	1450.6	4.37	11063.1	33.35

Table 19.12

GUAM DAWR NOVEMBER 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
LIZARDFISH	2.2	0.01	0	0	2.2	0.05	0	0
SQUIRRELFISH	4.2	0E02	0	0	0	0	4.2	8.55
GROUPER	175.3	0.88	0	0	168.9	4.06	6.4	13.16
JACKS	39.5	0.20	0	0	39.5	0.95	0	0
RAINBOW RUNNER	328.3	1.64	222.9	1.41	105.4	2.53	0	0
SNAPPERS	88.4	0.44	0	0	88.4	2.12	0	0
BLUE LINED SNAPPER	17.2	0.09	0	0	17.2	0.41	0	0
EMPERORS	1519.1	7.59	0	0	1519.1	36.50	0	0
GOATFISH	60.4	0.30	0	0	60.4	1.45	0	0
BARRACUDA	49.4	0.25	49.4	0.31	0	0	0	0
WRASSE	97.4	0.49	0	0	97.4	2.34	0	0
PARROTFISH	28.9	0.14	0	0	0	0	28.9	59.22
SURGEONFISH AND TANGS	9.3	0.05	0	0	0	0	9.3	19.06
WAHOO	9866.2	49.30	9866.2	62.43	0	0	0	0
KAWAKAWA	114.0	0.57	114.0	0.72	0	0	0	0
SKIPJACK TUNA	5143.9	25.70	5143.9	32.55	0	0	0	0
YELLOWFIN TUNA	406.5	2.03	406.5	2.57	0	0	0	0
TRIGGERFISH	71.9	0.36	0	0	71.9	1.73	0	0
ASSORTED BOTTOM FISH	1990.9	9.95	0	0	1990.9	47.84	0	0
TOTAL ALL SPECIES:	20013.0	100.00	15802.9	78.96	4161.3	20.79	48.8	0.24

Table 19.13

GUAM DAWR DECEMBER 1984
OFFSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	TOTAL ALL GEARS	% ALL GEARS	TROLLING	% THIS GEAR	BOTTOM	% THIS GEAR	OTHER	% THIS GEAR
GROUPER	339.7	0.46	0	0	339.7	9.53	0	0
JACKS	220.4	0.30	0	0	220.4	6.18	0	0
DOLPHINFISH (MAHIMAHI)	13296.1	18.15	13296.1	19.25	0	0	0	0
SNAPPERS	142.6	0.19	0	0	142.6	4.00	0	0
LEHI (SILVERMOUTH)	604.3	0.83	0	0	604.3	16.96	0	0
BLUE LINED SNAPPER	14.9	0.02	0	0	14.9	0.42	0	0
YELLOWTAIL KALIKALI	173.6	0.24	0	0	173.6	4.87	0	0
EMPERORS	1995.9	2.73	0	0	1995.9	56.01	0	0
GOATFISH	71.9	0.10	0	0	71.9	2.02	0	0
BARRACUDA	1351.0	1.84	1351.0	1.96	0	0	0	0
WAHOO	34190.7	46.68	34190.7	49.51	0	0	0	0
KAWAKAWA	531.8	0.73	531.8	0.77	0	0	0	0
SKIPJACK TUNA	6773.3	9.25	6773.3	9.81	0	0	0	0
YELLOWFIN TUNA	5948.1	8.12	5948.1	8.61	0	0	0	0
BLUE MARLIN	6969.0	9.52	6969.0	10.09	0	0	0	0
ASSORTED REEF FISH	618.6	0.84	0	0	0	0	618.6	100.00
TOTAL ALL SPECIES:	73241.8	100.00	69060.0	94.29	3563.2	4.86	618.6	0.84

Figure 16.1

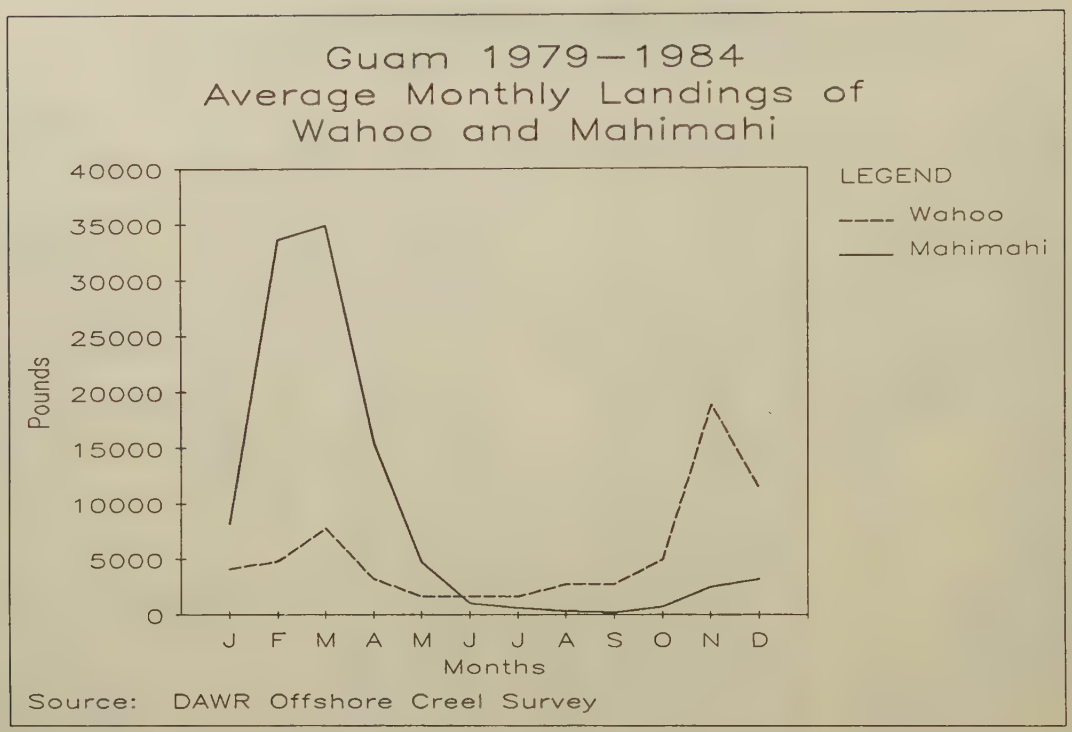


Figure 16.2

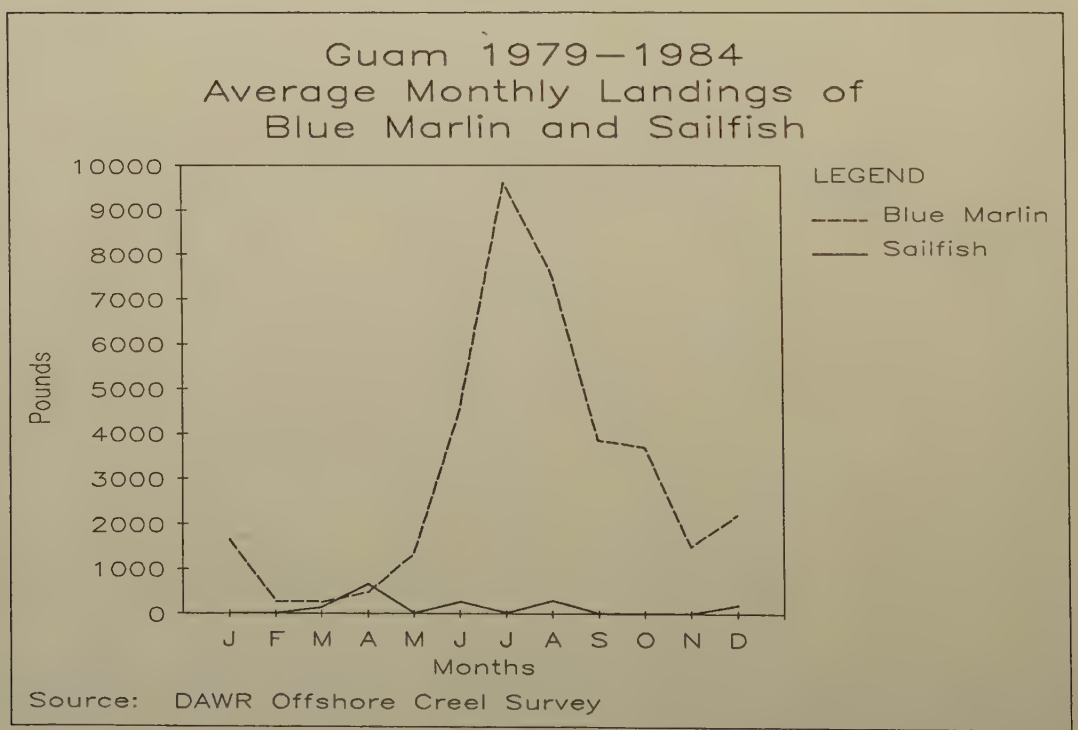


Figure 16.3

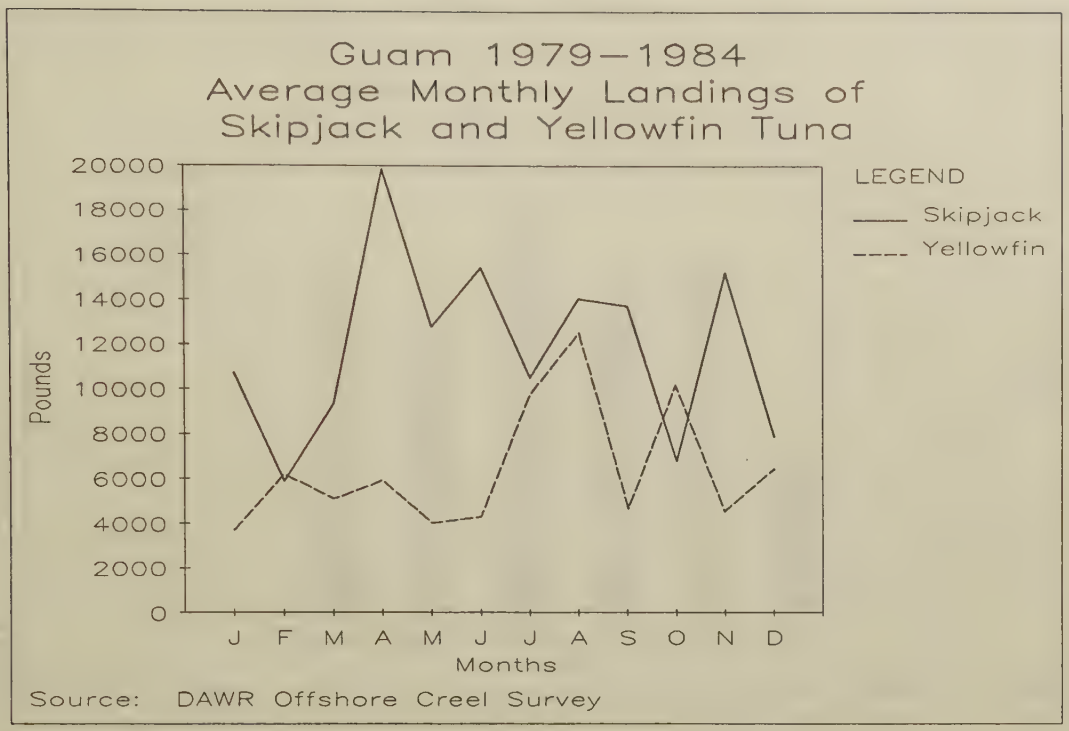

Guam 1979—1984
Average Monthly Landings of
Skipjack and Yellowfin Tuna
Pounds
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
J F M A M J J A S O N D
Months
LEGEND
Skipjack
Yellowfin
Source: DAWR Offshore Creel Survey

Figure 17.1

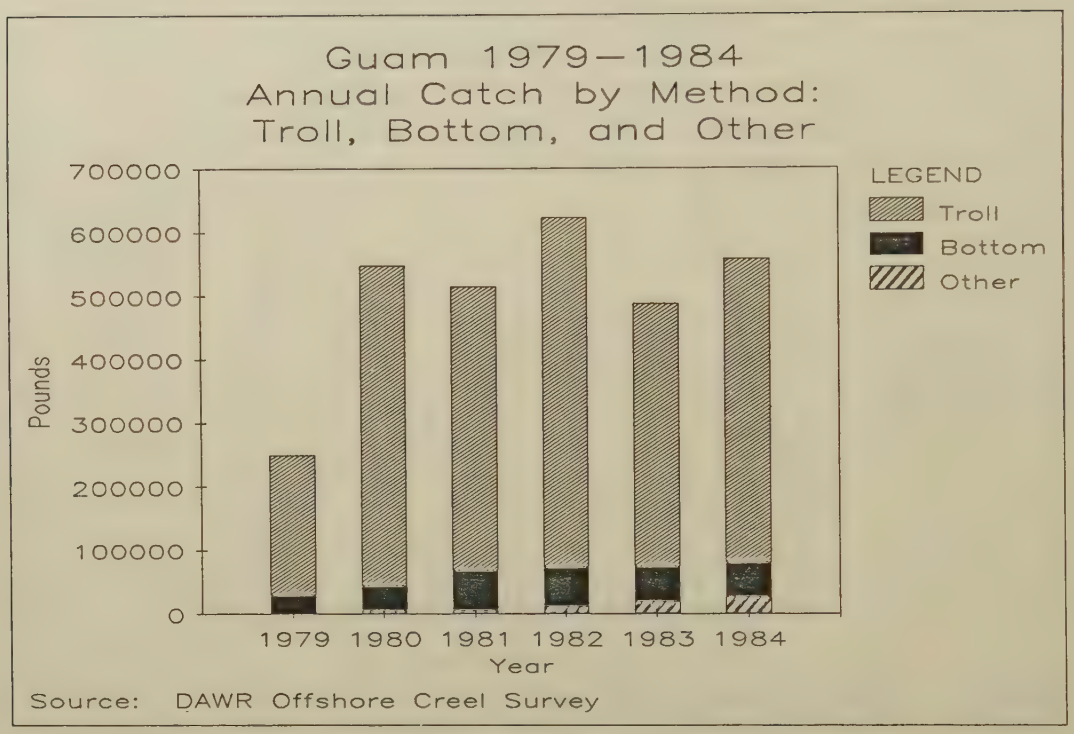


Figure 17.2

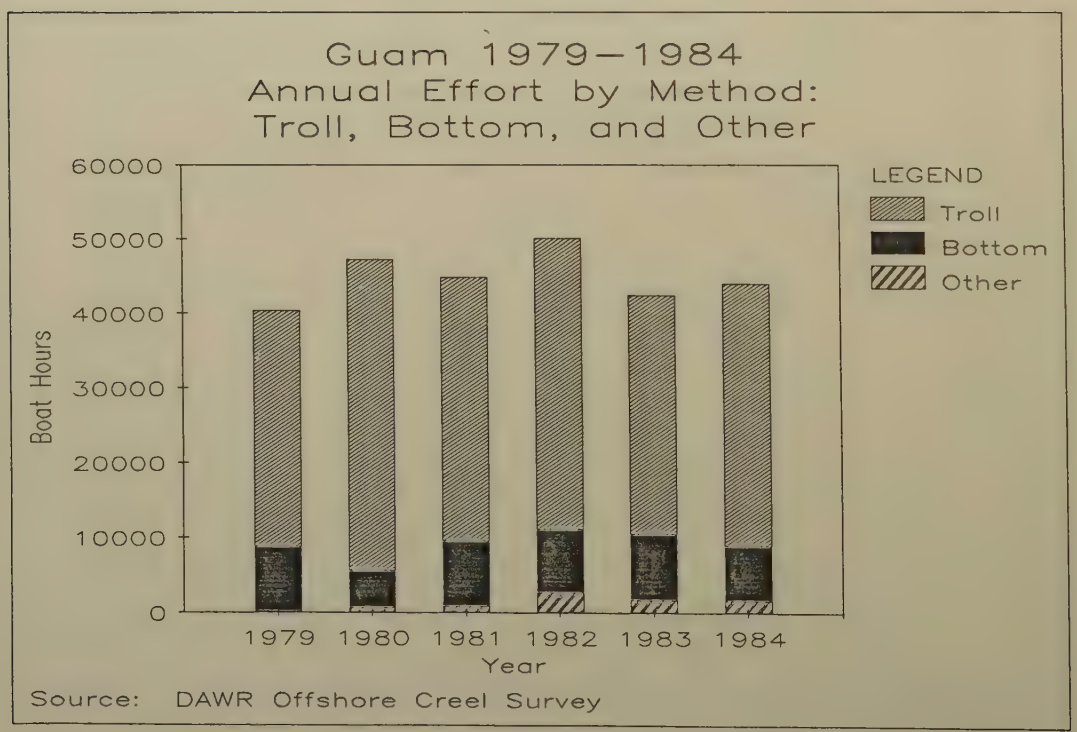


Figure 18.1

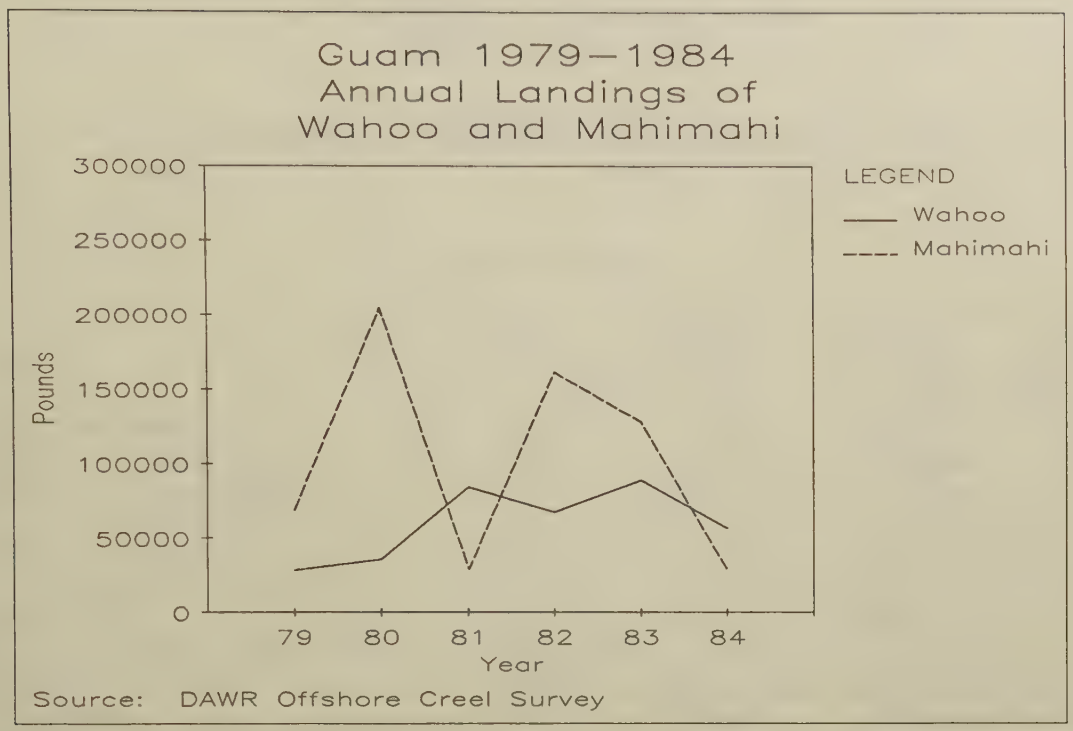


Figure 18.2

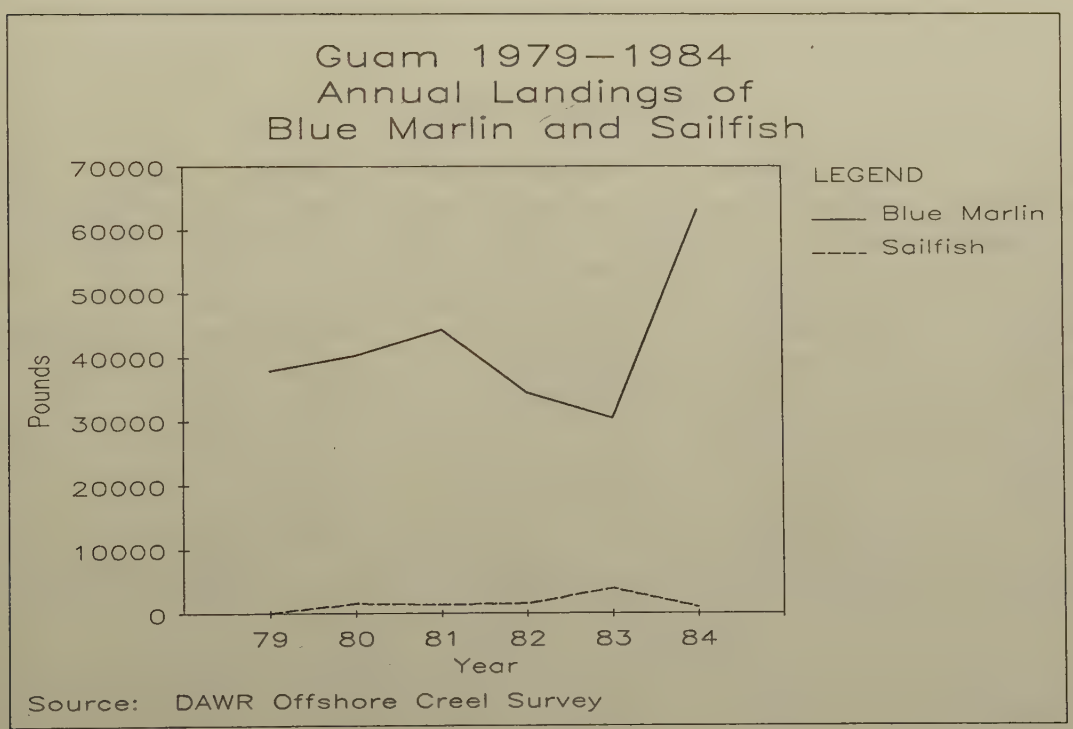


Figure 18.3

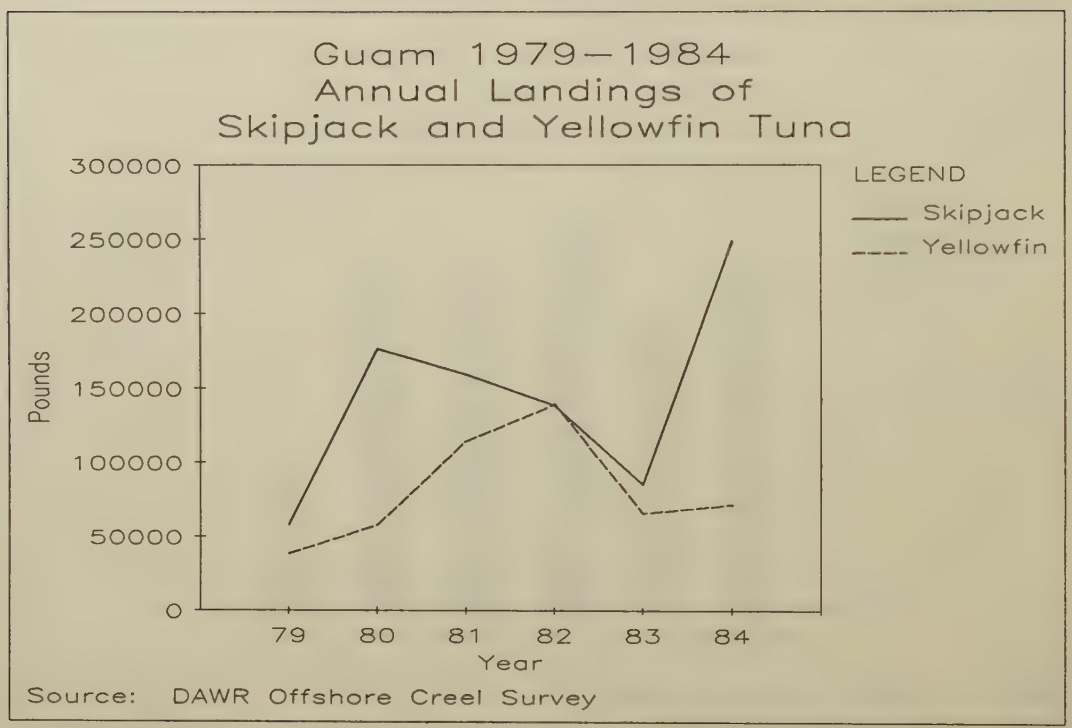

Guam 1979—1984
Annual Landings of
Skipjack and Yellowfin Tuna
300000
250000
200000
150000
100000
50000
0
Pounds
79
80
81
82
83
84
Year
LEGEND
Skipjack
Yellowfin
Source: DAWR Offshore Creel Survey

Table 20.1

1979 MARIANAS FISHING DERBY
SUMMARY REPORTS

PREPARED BY
GUAM DIVISION OF AQUATIC & WILDLIFE RESOURCES

DERBY TOTALS

	DAY 1 JULY 20	DAY 2 JULY 21	DAY 3 JULY 22	DERBY TOTALS
NUMBER OF BOATS	33.0	28.0	28.0	46.0
NUMBER OF BOAT TRIPS	33.0	28.0	28.0	89.0
NUMBER OF FISHERMEN	94.0	86.0	86.0	266.0
AVE. MEN PER BOAT	2.8	3.1	3.1	3.0
NUMBER OF LINES FISHED	153.0	130.0	119.0	402.0
AVE. LINES PER BOAT	4.6	4.6	4.3	4.5
BOAT HOURS	322.7	255.4	154.6	732.6
AVE. BOAT TRIP LENGTH	9.8	9.1	5.5	8.2
FISHERMAN HOURS	906.2	822.2	477.1	2205.5
LINE HOURS	1533.9	1202.2	674.5	3410.5
NUMBER OF FISH LANDED	70.0	62.0	22.0	154.0
POUNDS LANDED	2237.9	989.6	750.9	3978.5
AVE CATCH PER BOAT TRIP	67.8	35.3	26.8	44.7
AVE CATCH PER BOAT HOUR	6.9	3.9	4.9	5.4
AVE CATCH PER MAN HOUR	2.5	1.2	1.6	1.8
AVE CATCH PER LINE HOUR	1.5	.8	1.1	1.2

SPECIES TOTALS

	DAY 1 - JULY 20			DAY 2 - JULY 21			DAY 3 - JULY 22			TOTAL		
SPECIES	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.
MARLIN	3	996.0	332.0	2	285.1	142.5	1	296.1	296.1	6	1577.2	262.9
YELLOWFIN TUNA	21	799.4	38.1	8	376.8	47.1	4	173.7	43.4	33	1349.9	40.9
WAHOO	6	132.9	22.2	1	18.5	18.5	3	94.6	31.5	10	246.0	24.6
MAHIMAHI	1	32.6	32.6	2	50.3	25.1	0	0	0	3	82.9	27.6
SKIPJACK TUNA	22	162.3	7.4	47	240.5	5.1	7	72.3	10.3	76	475.1	6.3
RAINBOW RUNNER	9	35.7	4.0	1	3.5	3.5	0	0	0	10	39.2	3.9
BARRACUDA	5	41.2	8.2	1	15.0	15.0	0	0	0	6	56.2	9.4
OTHER	3	37.7	12.6	0	0	0	7	114.2	16.3	10	151.9	15.2
TOTALS	70	2237.9	32.0	62	989.6	16.0	22	750.9	34.1	154	3978.5	25.8

Table 20.2

1980 MARIANAS FISHING DERBY
SUMMARY REPORTS

PREPARED BY
GUAM DIVISION OF AQUATIC & WILDLIFE RESOURCES

DERBY TOTALS

	DAY 1 JULY 19	DAY 2 JULY 20	DAY 3 JULY 21	DERBY TOTALS
NUMBER OF BOATS	37.0	24.0	22.0	41.0
NUMBER OF BOAT TRIPS	37.0	24.0	22.0	83.0
NUMBER OF FISHERMEN	110.0	81.0	70.0	261.0
AVE. MEN PER BOAT	3.0	3.4	3.2	3.1
NUMBER OF LINES FISHED	171.0	115.0	94.0	380.0
AVE. LINES PER BOAT	4.6	4.8	4.3	4.6
BOAT HOURS	405.0	240.5	196.0	841.5
AVE. BOAT TRIP LENGTH	10.9	10.0	8.9	10.1
FISHERMAN HOURS	1206.6	839.0	617.9	2663.5
LINE HOURS	1898.3	1192.8	841.6	3932.7
NUMBER OF FISH LANDED	69.0	30.0	15.0	114.0
POUNDS LANDED	1212.3	794.9	815.3	2822.4
AVE CATCH PER BOAT TRIP	32.8	33.1	37.1	34.0
AVE CATCH PER BOAT HOUR	3.0	3.3	4.2	3.4
AVE CATCH PER MAN HOUR	1.0	.9	1.3	1.1
AVE CATCH PER LINE HOUR	.6	.7	1.0	.7

SPECIES TOTALS

	DAY 1 - JULY 19			DAY 2 - JULY 20			DAY 3 - JULY 21			TOTAL		
SPECIES	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.
MARLIN	4	445.3	111.3	2	439.8	219.9	4	520.7	130.2	10	1405.9	140.6
YELLOWFIN TUNA	31	483.5	15.6	16	178.8	11.2	6	140.7	23.4	53	802.9	15.1
WAHOO	6	164.5	27.4	4	110.2	27.6	3	102.3	34.1	13	377.0	29.0
MAHIMAHI	0	0	0	1	35.1	35.1	2	51.6	25.8	3	86.6	28.9
SKIPJACK TUNA	28	119.0	4.3	5	22.0	4.4	0	0	0	33	141.1	4.3
RAINBOW RUNNER	0	0	0	1	1.0	1.0	0	0	0	1	1.0	1.0
BARRACUDA	0	0	0	1	7.9	7.9	0	0	0	1	7.9	7.9
OTHER	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	69	1212.3	17.6	30	794.9	26.5	15	815.3	54.4	114	2822.4	24.8

Table 20.3

1981 MARIANAS FISHING DERBY
SUMMARY REPORTS

PREPARED BY
GUAM DIVISION OF AQUATIC & WILDLIFE RESOURCES

DERBY TOTALS

	DAY 1 JULY 18	DAY 2 JULY 19	DAY 3 JULY 20	DERBY TOTALS
NUMBER OF BOATS	50.0	54.0	51.0	68.0
NUMBER OF BOAT TRIPS	56.0	60.0	57.0	173.0
NUMBER OF FISHERMEN	180.0	202.0	179.0	561.0
AVE. MEN PER BOAT	3.2	3.4	3.1	3.2
NUMBER OF LINES FISHED	228.0	238.0	240.0	706.0
AVE. LINES PER BOAT	4.1	4.0	4.2	4.1
BOAT HOURS	559.0	548.0	522.5	1629.5
AVE. BOAT TRIP LENGTH	10.0	9.1	9.2	9.4
FISHERMAN HOURS	1860.9	1906.4	1662.7	5430.0
LINE HOURS	2330.7	2245.4	2246.0	6822.1
NUMBER OF FISH LANDED	151.0	68.0	112.0	331.0
POUNDS LANDED	3451.9	2913.8	2197.2	8562.9
AVE CATCH PER BOAT TRIP	61.6	48.6	38.5	49.5
AVE CATCH PER BOAT HOUR	6.2	5.3	4.2	5.3
AVE CATCH PER MAN HOUR	1.9	1.5	1.3	1.6
AVE CATCH PER LINE HOUR	1.5	1.3	1.0	1.3

SPECIES TOTALS

	DAY 1 - JULY 18			DAY 2 - JULY 19			DAY 3 - JULY 20			TOTAL		
SPECIES	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.
MARLIN	9	1302.3	144.7	16	2009.9	125.6	8	957.2	119.7	33	4269.4	129.4
YELLOWFIN TUNA	65	1363.3	21.0	7	272.9	39.0	32	778.7	24.3	104	2414.9	23.2
WAHOO	19	371.9	19.6	26	529.3	20.4	12	216.1	18.0	57	1117.3	19.6
MAHIMAHI	0	0	0	0	0	0	1	1.9	1.9	1	1.9	1.9
SKIPJACK TUNA	19	126.8	6.7	9	47.6	5.3	4	21.2	5.3	32	195.5	6.1
RAINBOW RUNNER	17	58.1	3.4	8	34.8	4.4	49	165.8	3.4	74	258.7	3.5
BARRACUDA	13	123.5	9.5	2	19.2	9.6	4	26.5	6.6	19	169.1	8.9
OTHER	9	106.0	11.8	0	0	0	2	30.0	15.0	11	136.0	12.4
TOTALS	151	3451.9	22.9	68	2913.8	42.9	112	2197.2	19.6	331	8562.9	25.9

Table 20.4

1982 MARIANAS FISHING DERBY
SUMMARY REPORTS

PREPARED BY
GUAM DIVISION OF AQUATIC & WILDLIFE RESOURCES

DERBY TOTALS

	DAY 1 JULY 17	DAY 2 JULY 18	DAY 3 JULY 19	DERBY TOTALS
NUMBER OF BOATS	75.0	70.0	55.0	82.0
NUMBER OF BOAT TRIPS	80.0	72.0	57.0	209.0
NUMBER OF FISHERMEN	270.0	224.0	176.0	670.0
AVE. MEN PER BOAT	3.4	3.1	3.1	3.2
NUMBER OF LINES FISHED	335.0	295.0	233.0	863.0
AVE. LINES PER BOAT	4.2	4.1	4.1	4.1
BOAT HOURS	790.2	705.4	486.0	1981.6
AVE. BOAT TRIP LENGTH	9.9	9.8	8.5	9.5
FISHERMAN HOURS	2738.2	2233.6	1541.3	6513.1
LINE HOURS	3326.2	2908.3	1992.4	8226.9
NUMBER OF FISH LANDED	147.0	153.0	180.0	480.0
POUNDS LANDED	2941.9	3236.4	2206.5	8384.8
AVE CATCH PER BOAT TRIP	36.9	45.0	38.7	40.2
AVE CATCH PER BOAT HOUR	3.7	4.6	4.5	4.2
AVE CATCH PER MAN HOUR	1.1	1.4	1.4	1.3
AVE CATCH PER LINE HOUR	.9	1.1	1.1	1.0

SPECIES TOTALS

	DAY 1 - JULY 17			DAY 2 - JULY 18			DAY 3 - JULY 19			TOTAL		
SPECIES	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.
MARLIN	4	804.5	201.1	6	753.8	125.6	2	320.1	160.1	12	1878.3	156.5
YELLOWFIN TUNA	76	1395.7	18.4	81	1722.9	21.3	31	556.0	17.9	188	3674.6	19.5
WAHOO	15	276.0	18.4	15	253.6	16.9	5	98.1	19.6	35	627.8	17.9
MAHIMAHI	7	68.6	9.8	5	52.5	10.5	2	19.0	9.5	14	140.0	10.0
SKIPJACK TUNA	6	48.5	8.1	0	0	0	3	26.5	8.8	9	75.0	8.3
RAINBOW RUNNER	6	33.1	5.5	0	0	0	0	0	0	6	33.1	5.5
BARRACUDA	1	6.6	6.6	1	6.6	6.6	21	192.7	9.2	23	205.9	9.0
OTHER	32	309.0	9.7	45	447.0	9.9	116	994.2	8.6	193	1750.2	9.1
TOTALS	147	2941.9	20.0	153	3236.4	21.2	180	2206.5	12.3	480	8384.8	17.5

Table 20.5

1983 MARIANAS FISHING DERBY
SUMMARY REPORTS

PREPARED BY
GUAM DIVISION OF AQUATIC & WILDLIFE RESOURCES

DERBY TOTALS

	DAY 1 JULY 16	DAY 2 JULY 17	DAY 3 JULY 18	DERBY TOTALS
NUMBER OF BOATS	48.0	51.0	38.0	74.0
NUMBER OF BOAT TRIPS	50.0	54.0	42.0	146.0
NUMBER OF FISHERMEN	156.0	160.0	114.0	430.0
AVE. MEN PER BOAT	3.1	3.0	2.7	2.9
NUMBER OF LINES FISHED	226.0	224.0	182.0	632.0
AVE. LINES PER BOAT	4.5	4.1	4.3	4.3
BOAT HOURS	490.1	465.4	393.8	1349.3
AVE. BOAT TRIP LENGTH	9.8	8.6	9.4	9.2
FISHERMAN HOURS	1536.0	1429.7	1079.2	4044.8
LINE HOURS	2234.7	1933.1	1715.7	5883.5
NUMBER OF FISH LANDED	165.0	64.0	52.0	281.0
POUNDS LANDED	3280.7	1866.3	1014.6	6161.5
AVE CATCH PER BOAT TRIP	65.6	34.6	24.2	42.2
AVE CATCH PER BOAT HOUR	6.7	4.0	2.6	4.6
AVE CATCH PER MAN HOUR	2.1	1.3	.9	1.5
AVE CATCH PER LINE HOUR	1.5	1.0	.6	1.0

SPECIES TOTALS

	DAY 1 - JULY 16			DAY 2 - JULY 17			DAY 3 - JULY 18			TOTAL		
SPECIES	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.
MARLIN	6	948.0	158.0	4	756.4	189.1	2	257.5	128.7	12	1961.9	163.5
YELLOWFIN TUNA	62	1329.8	21.4	25	550.3	22.0	13	322.3	24.8	100	2202.4	22.0
WAHOO	20	435.4	21.8	11	261.2	23.7	6	86.4	14.4	37	783.1	21.2
MAHIMAHI	6	65.9	11.0	9	114.0	12.7	18	219.1	12.2	33	399.0	12.1
SKIPJACK TUNA	71	501.5	7.1	4	28.9	7.2	11	53.6	4.9	86	584.0	6.8
RAINBOW RUNNER	0	0	0	4	17.2	4.3	0	0	0	4	17.2	4.3
BARRACUDA	0	0	0	7	138.3	19.8	1	20.9	20.9	8	159.3	19.9
OTHER	0	0	0	0	0	0	1	54.7	54.7	1	54.7	54.7
TOTALS	165	3280.7	19.9	64	1866.3	29.2	52	1014.6	19.5	281	6161.5	21.9

Table 20.6

1984 MARIANAS FISHING DERBY
SUMMARY REPORTS

PREPARED BY
GUAM DIVISION OF AQUATIC & WILDLIFE RESOURCES

DERBY TOTALS

	DAY 1 JULY 14	DAY 2 JULY 15	DAY 3 JULY 16	DERBY TOTALS
NUMBER OF BOATS	54.0	44.0	31.0	66.0
NUMBER OF BOAT TRIPS	58.0	47.0	34.0	139.0
NUMBER OF FISHERMEN	178.0	150.0	107.0	435.0
AVE. MEN PER BOAT	3.1	3.2	3.1	3.1
NUMBER OF LINES FISHED	241.0	193.0	144.0	578.0
AVE. LINES PER BOAT	4.2	4.1	4.2	4.2
BOAT HOURS	651.1	439.9	319.4	1410.4
AVE. BOAT TRIP LENGTH	11.2	9.4	9.4	10.1
FISHERMAN HOURS	2022.8	1330.6	1038.5	4391.9
LINE HOURS	2751.6	1867.8	1386.4	6005.8
NUMBER OF FISH LANDED	131.0	110.0	82.0	323.0
POUNDS LANDED	4016.3	2795.9	2386.0	9198.3
AVE CATCH PER BOAT TRIP	69.5	59.5	70.2	66.3
AVE CATCH PER BOAT HOUR	6.2	6.4	7.5	6.5
AVE CATCH PER MAN HOUR	2.0	2.1	2.3	2.1
AVE CATCH PER LINE HOUR	1.5	1.5	1.7	1.5

SPECIES TOTALS

	DAY 1 - JULY 14			DAY 2 - JULY 15			DAY 3 - JULY 16			TOTAL		
SPECIES	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.	NUMBER CAUGHT	TOTAL WT-LBS	AVE WT.
MARLIN	17	2759.7	162.3	14	1639.3	117.1	12	1520.3	126.7	43	5919.4	137.7
YELLOWFIN TUNA	24	412.5	17.2	18	288.4	16.0	9	126.8	14.1	51	827.6	16.2
WAHOO	18	342.6	19.0	13	343.5	26.4	21	470.2	22.4	52	1156.3	22.2
MAHIMAHI	0	0	0	0	0	0	0	0	0	0	0	0
SKIPJACK TUNA	69	491.2	7.1	63	515.2	8.2	40	268.7	6.7	172	1275.1	7.4
RAINBOW RUNNER	1	1.1	1.1	0	0	0	0	0	0	1	1.1	1.1
BARRACUDA	1	6.2	6.2	2	9.5	4.7	0	0	0	3	15.7	5.2
OTHER	1	3.1	3.1	0	0	0	0	0	0	1	3.1	3.1
TOTALS	131	4016.3	30.7	110	2795.9	25.4	82	2386.0	29.1	323	9198.3	28.5

Table 21.1

GUAM DAWR ANNUAL 1983
INSHORE CREEL SURVEY EXPANSION SUMMARY

METHODS	PRSN CNT	CV	GEAR CNT	CV	TRIP CNT	CV	PRNS HRS	CV	GEAR HRS	CV	CATCH	CV	CPUE
HOOK & LINE	46263.4	6	43857.8	6	24420.9	12	157496.0	7	148964.2	7	54407.5	3	.37
CAST NET	8803.6	6	6916.5	6	6046.8	6	20321.9	7	15991.8	7	20455.8	7	1.28
GILL NET	8841.5	6	4357.9	6	4357.9	6	33667.2	7	16520.1	7	48542.1	7	2.94
SURROUND NET	6873.7	14	782.4	14	782.4	14	40998.6	15	4616.3	14	36502.2	14	7.91
SPEAR-SNORKEL	5775.8	10	5282.7	10	3341.8	10	15784.5	10	14367.9	10	31944.9	10	2.22
SPEAR-SCUBA	272.6	41	168.6	45	84.3	45	272.6	41	168.6	45	557.6	45	3.31
HOOK&GAFF	1709.1	25	1475.0	24	798.4	25	4038.3	24	3510.4	24	2978.9	24	.85
DIP NET	200.7	59	169.7	58	169.7	58	728.7	59	615.9	58	1086.2	58	1.76
OTHER	8772.3	16	8772.3	16	2986.0	16	28778.1	16	28778.1	16	69339.3	16	2.41
TOTALS	87512.7	4	71782.8	4	44856.6	4	310710.7	4	236488.5	4	265814.5	4	1.31

Table 21.2

GUAM DAWR ANNUAL 1983
INSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	POUNDS	%	COMMON NAME	POUNDS	%
SHARKS	203.4	0.08	HERRING	4767.9	1.79
MORAY EELS	260.3	0.10	CONGER EELS	1033.3	0.39
MILKFISH	32.1	0.01	LIZARDFISH	23.8	0.01
NEEDLEFISH	80.2	0.03	HALFBEAK	520.0	0.20
SILVERSIDES	385.3	0.14	SQUIRRELFISH	1670.8	0.63
CORNETFISH	311.4	0.12	SCORPIONFISH	61.9	0.02
GROUPER	1820.3	0.68	BIGEYES	111.3	0.04
CARDINALFISH	7.3	0	JACKS	19024.7	7.16
BIGEYE SCAD (AKULE)	13513.3	5.08	SNAPPERS	804.8	0.30
BREAM	139.4	0.05	MOHARRA	15508.2	5.83
EMPERORS	930.4	0.35	GOATFISH	5581.7	2.10
SWEEPERS	183.0	0.07	RUDDERFISH	1748.5	0.66
BUTTERFLYFISH	402.2	0.15	DAMSELFISHES	1204.4	0.45
HAWKFISH	21.4	0.01	MULLET	5244.4	1.97
BARRACUDA	366.1	0.14	WRASSE	3274.8	1.23
PARROTFISH	5528.6	2.08	SURGEONFISH AND TANGS	32165.3	12.10
RABBITFISH	36975.3	13.91	FLOUNDER	80.4	0.03
TRIGGERFISH	3898.3	1.47	ASSORTED REEF FISH	37731.1	14.19
AQUARIUM FISH	72.8	0.03	UNIDENTIFIED FISH	1643.8	0.62
MOLLUSKS	56633.2	21.31	SQUID	238.4	0.09
OCTOPUS	7434.1	2.80	SPINY LOBSTERS	198.7	0.07
CRABS	45.0	0.02	BROWN ALGAE	3932.8	1.48
TOTAL ALL SPECIES:	265814.5	100.00			

Table 21.3

GUAM DAWR ANNUAL 1984
INSHORE CREEL SURVEY EXPANSION SUMMARY

METHODS	PRSN CNT	CV	GEAR CNT	CV	TRIP CNT	CV	PRNS HRS	CV	GEAR HRS	CV	CATCH	CV	CPUE
HOOK & LINE	78502.7	10	76792.1	10	45124.4	17	258917.2	11	254035.9	11	107584.3	5	.42
CAST NET	8157.2	9	6807.1	9	5952.9	9	20415.6	9	17035.3	9	18989.6	9	1.11
GILL NET	8608.0	10	4342.9	10	3782.4	10	27580.8	10	13914.6	10	43416.5	10	3.12
SURROUND NET	4026.3	20	571.7	20	571.7	20	12078.8	20	1715.0	20	15426.1	20	8.99
SPEAR-SNORKEL	4467.8	10	4253.6	10	2001.6	11	9825.3	11	9377.0	11	27123.0	11	2.89
SPEAR-SCUBA	215.0	36	215.8	38	215.8	38	150.5	36	151.0	38	5537.3	38	36.66
HOOK&GAFF	1773.8	18	1808.4	17	512.9	17	3373.4	21	3336.6	20	3371.7	20	1.01
DIP NET	73.9	100	14.8	100	14.8	100	129.4	100	25.9	100	21.5	100	.83
OTHER	7925.8	24	7925.8	24	6925.2	26	7913.2	23	7913.2	23	23719.3	23	3.00
TOTALS	113750.4	6	102732.2	6	62716.5	6	372691.8	6	301434.5	6	245189.3	6	1.07

Table 21.4

GUAM DAWR ANNUAL 1984
INSHORE CREEL SURVEY SPECIES COMPOSITION

COMMON NAME	POUNDS	%	COMMON NAME	POUNDS	%
HERRING	26.2	0.01	ANCHOVY	2391.0	0.98
BONEFISH	9.4	0	MORAY EELS	2568.8	1.05
MILKFISH	214.0	0.09	NEEDLEFISH	1723.1	0.70
HALFBEAK	699.3	0.29	SILVERSIDES	393.7	0.16
ALFONSIN	106.6	0.04	SQUIRRELFISH	533.0	0.22
CORNETFISH	490.5	0.20	PIPEFISH	64.0	0.03
GROUPER	477.3	0.19	CARDINALFISH	18.3	0.01
JACKS	41501.7	16.93	RAINBOW RUNNER	1968.7	0.80
BIGEYE SCAD (AKULE)	25991.7	10.60	PONYFISHES	568.7	0.23
SNAPPERS	4984.6	2.03	FUSILIER	801.0	0.33
BREAM	148.0	0.06	MOHARRA	961.3	0.39
EMPERORS	7794.4	3.18	GOATFISH	11537.3	4.71
RUDDERFISH	711.5	0.29	BUTTERFLYFISH	1995.6	0.81
DAMSELFISHES	1113.2	0.45	MULLET	8615.0	3.51
BARRACUDA	3348.7	1.37	WRASSE	9651.0	3.94
PARROTFISH	3443.2	1.40	SURGEONFISH AND TANGS	45663.6	18.62
MOORISH IDOLS	819.2	0.33	RABBITFISH	21829.5	8.90
FLOUNDER	4.3	0	TRIGGERFISH	2052.1	0.84
FILEFISH	836.9	0.34	BOXFISH, COWFISH	31.4	0.01
PORCUPINEFISH	639.8	0.26	ASSORTED REEF FISH	248.1	0.10
MOLLUSKS	16751.6	6.83	SQUID	1066.4	0.43
OCTOPUS	9582.3	3.91	CRABS	5100.8	2.08
GREEN ALGAE	5649.7	2.30	RED ALGAE	62.8	0.03
TOTAL ALL SPECIES:	245189.3	100.00			

Table 21.5

GUAM DAWR ANNUAL 1983
COMBINED INSHORE AND OFFSHORE CREEL SURVEY
SPECIES COMPOSITION

COMMON NAME	POUNDS	%	COMMON NAME	POUNDS	%
SHARKS	7166.5	0.95	HERRING	4767.9	0.63
MORAY EELS	402.9	0.05	CONGER EELS	1033.3	0.14
MILKFISH	32.1	0	LIZARDFISH	27.0	0
NEEDLEFISH	136.6	0.02	HALFBEAK	520.0	0.07
SILVERSIDES	385.3	0.05	SQUIRRELFISH	2719.4	0.36
CORNETFISH	311.4	0.04	SCORPIONFISH	61.9	0.01
GROUPER	5999.8	0.80	BIGEYES	111.3	0.01
GLASSEYED SNAPPER	36.4	0	CARDINALFISH	13.8	0
JACKS	22697.7	3.01	RAINBOW RUNNER	455.4	0.06
BIGEYE SCAD (AKULE)	24586.0	3.26	DOLPHINFISH (MAHIMAHI)	128129.5	17.01
SNAPPERS	3119.4	0.41	LEHI (SILVERMOUTH)	2725.5	0.36
UKU (JOBFISH)	1329.8	0.18	EHU (PINK SNAPPER)	1147.1	0.15
ONAGA (RED SNAPPER)	3808.6	0.51	BLUE LINED SNAPPER	172.1	0.02
YELLOWTAIL KALIKALI	5782.8	0.77	OPAKAPAKA (PINK SNAP)	1221.1	0.16
YELLOWEYE OPAKAPAKA	4341.8	0.58	KALIKALI (PINK SNAPPER)	764.3	0.10
GINDAI (FLOWER SNAPPER)	1632.4	0.22	BREAM	160.5	0.02
MOHARRA	15508.2	2.06	SWEETLIPS	42.1	0.01
EMPERORS	12221.5	1.62	GOATFISH	6416.9	0.85
SWEEPERS	199.0	0.03	RUDDERFISH	2098.6	0.28
BUTTERFLYFISH	402.2	0.05	DAMSELFISHES	1204.4	0.16
HAWKFISH	21.4	0	MULLET	5244.4	0.70
BARRACUDA	7224.9	0.96	WRASSE	4214.1	0.56
PARROTFISH	6406.5	0.85	SURGEONFISH AND TANGS	33475.8	4.44
RABBITFISH	36975.3	4.91	OILFISH	73.5	0.01
WAHOO	89010.0	11.81	KAWAKAWA	499.2	0.07
DOGTOOTH TUNA	1521.3	0.20	SKIPJACK TUNA	85008.4	11.28
YELLOWFIN TUNA	65598.3	8.71	SAILFISH	3819.7	0.51
BLUE MARLIN	30358.7	4.03	FLOUNDER	80.4	0.01
TRIGGERFISH	5087.9	0.68	ASSORTED BOTTOM FISH	2153.8	0.29
ASSORTED REEF FISH	41201.3	5.47	AQUARIUM FISH	72.8	0.01
UNIDENTIFIED FISH	1643.8	0.22	MOLLUSKS	56827.6	7.54
CUTTLEFISH	11.2	0	SQUID	238.4	0.03
OCTOPUS	8519.7	1.13	SPINY LOBSTERS	225.0	0.03
CRABS	45.0	0.01	BROWN ALGAE	3932.8	0.52
TOTAL ALL SPECIES:	753383.6	100.00			

Table 21.6

GUAM DAWR ANNUAL 1984
COMBINED INSHORE AND OFFSHORE CREEL SURVEY
SPECIES COMPOSITION

COMMON NAME	POUNDS	%	COMMON NAME	POUNDS	%
SHARKS	427.6	0.05	HERRING	26.2	0
ANCHOVY	2391.0	0.30	BONEFISH	9.4	0
MORAY EELS	2568.8	0.32	MILKFISH	214.0	0.03
LIZARDFISH	1.9	0	NEEDLEFISH	1723.1	0.21
HALFBEAK	699.3	0.09	SILVERSIDES	393.7	0.05
ALFONSIN	106.6	0.01	SQUIRRELFISH	820.4	0.10
CORNETFISH	490.5	0.06	PIPEFISH	64.0	0.01
GROUPER	2289.7	0.28	GLASSEYED SNAPPER	4.3	0
CARDINALFISH	18.3	0	JACKS	43747.6	5.44
RAINBOW RUNNER	3509.5	0.44	BIGEYE SCAD (AKULE)	41988.3	5.22
DOLPHINFISH (MAHIMAHI)	28846.6	3.59	PONYFISHES	568.7	0.07
SNAPPERS	5811.9	0.72	LEHI (SILVERMOUTH)	321.7	0.04
UKU (JOBFISH)	841.3	0.10	EHU (PINK SNAPPER)	32.3	0
ONAGA (RED SNAPPER)	219.9	0.03	BLUE LINED SNAPPER	60.1	0.01
YELLOWTAIL KALIKALI	1109.6	0.14	OPAKAPAKA (PINK SNAP)	117.4	0.01
YELLOWEYE OPAKAPAKA	484.0	0.06	GINDAI (FLOWER SNAPPER)	290.7	0.04
FUSILIER	801.0	0.10	BREAM	148.0	0.02
MOHARRA	961.3	0.12	SWEETLIPS	104.9	0.01
EMPERORS	17935.3	2.23	GOATFISH	11798.4	1.47
RUDDERFISH	946.0	0.12	BATFISH	10.0	0
BUTTERFLYFISH	1995.6	0.25	DAMSELFISHES	1113.2	0.14
MULLET	8615.0	1.07	BARRACUDA	9047.4	1.13
WRASSE	10604.2	1.32	PARROTFISH	4675.1	0.58
SURGEONFISH AND TANGS	46207.2	5.75	MOORISH IDOLS	819.2	0.10
RABBITFISH	21829.5	2.72	WAHOO	56500.5	7.03
KAWAKAWA	1397.8	0.17	DOGTOOTH TUNA	967.7	0.12
SKIPJACK TUNA	248243.1	30.89	YELLOWFIN TUNA	71502.1	8.90
SAILFISH	952.0	0.12	BLUE MARLIN	63057.1	7.85
FLOUNDER	4.3	0	TRIGGERFISH	2353.1	0.29
FILEFISH	836.9	0.10	BOXFISH, COWFISH	31.4	0
PORCUPINEFISH	639.8	0.08	ASSORTED BOTTOM FISH	32651.4	4.06
ASSORTED REEF FISH	8535.7	1.06	MOLLUSKS	16751.6	2.08
SQUID	1066.4	0.13	OCTOPUS	9605.9	1.20
SPINY LOBSTERS	30.0	0	CRABS	5100.8	0.63
GREEN ALGAE	5649.7	0.70	RED ALGAE	62.8	0.01
TOTAL ALL SPECIES:	803749.9	100.00			